A Bibliography of Domain Decomposition

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Abstract

This bibliography records publications on domain decomposition.

Title word cross-reference

1 [Lt93]. 2 [CJSS08, GHS93, HLM91b, Kra09, LC08, MCL02, Tal93]. 2^{nd} [DHY03]. 3 [BIP01, BM93a, BIA05, DGS01, Dry88, HK98a, JN02, KY89, Kra09, Kuz89b, Kuz91a]. C^1 [Osw89a]. ϵ [MS02]. H [BPS04, Ain96a, Ain96b, GG03, Rac95, ST00a]. $H(\text{curl})$ [Hie03]. $H - LU$ [BO07]. $H\mathcal{H}$ [GKB09]. hp [BPO95, Kor01, Kor02, OPF97, SP03]. ILU [CGK94]. k [LP95]. $k - \epsilon$ [KLM02]. $k \times k$ [LP95]. $k \to \infty$ [LP95]. L^2 [BX91, Xu91, Sch71]. LDL^{t} [mM04]. M [Tar94]. N [Lui99, GKS98, Il'69]. $O(N^2 \log N)$ [BBM00]. p [Ain96a, Ain96b, BGP89, BCMP91, Beu02, Beu05, Fal03, GOS05, KI96, KJ99, ML91, ST00a]. P1 [Osw93]. $P1/P1$ [ST00b]. P_1 [Jia06]. $P_1^{NC-}P_0$ [JT06]. P_{2N+1} [Sme89]. Q_n [Pav00]. Q_{n-2} [Pav00]. V [Kwa03, SX99]. $W_2^{1/2}(S)$ [Nep84].

-adaptive [Rac95]. **-approximation** [Sme89]. **-body** [GKS98]. **-cycle** [Kwa03, SX99]. **-D** [Dry88, BIP01, BIA05, CJSS08, JN02, Kuz89b, Kuz91a, Lt93]. **-dimensional** [Il'69]. **-discretizations** [Kor02]. **-FEM** [Beu02, Beu05]. **-Level** [MCL02]. **-line** [LP95]. **-LU** [GKB09]. **-matrices** [BPS04, Tar94]. **-robust** [GOS05]. **-type** [BGP89]. **-uniform** [MS02]. **-version** [BCMP91, BPO95, KI96, KJ99, Kor01, ML91]. **-wavelet** [Fal03].

/II [Ano91].

1-d [Lag99a, ILW07]. **13th** [PSB+94]. **1987** [GGMP88b]. **1989** [CLM89]. **1994** [HWP95]. **1995** [PB96].

DH98, DZ04, Dua06, Fen98, FGGV08, jFZ06, GK09, GRN99, GKB09, GHL00, HG08, HK96, HJ97a, HR09, HE98, HC91, JY01, KRT91b, Kok07, Kok08a, KHD05, Kuh98, KT05, Lae98, LLPJ08, LKY07, LG87, Lee00, Lee06, LCO04, Liu09, LJ06b, LLS89, LLS91, MDTC08, MKP+96, MC05b, MY07, Par04, RMSS03, RTÈ06, Sal04, Sha90, Str96, SHS09, TD07, WVE97, Woh01, Yse90, Yu94, hY98, Yu99b, ZY07, dCD00, HK08]. **Bases** [Yse85, Yse86a, GTZ88, KI96, Osw89a, WST09]. **Basic** [BY92, Ste01]. **basin** [FFN+02, Kok07]. **Basis** [BDY88, BLB00, Ong89, Sch98, SW90, TCK91, AE07, BP08, BFF96, Dua06, GY09, GCMGRG09, HC92, KR06, LK04, MR04, Nie09, Osw89b, Osw92b, Ovt93, PHR07, TGSS10, Wen06, WL06, ZHL03, Mor56]. **battlefield** [DMP98]. **Bayesian** [PHW00]. **BDD** [GS10]. **BDDC** [BCLP10, DGS07, KPR08, LW06, MS07, Tu07]. **BE** [HK96]. **Beam** [TMS87]. **Beams** [Leu99, QFR03, BM10, Leu98b]. **Begründung** [Mor56]. **Behavior** [GH01, CP96]. **Belgium** [DRV00, LCHS96]. **Bellman** [CFLS94, FLS94]. **BEM** [BP08, HST95, Kuh98, SST96]. **BEM/FEM/GSM** [BP08]. **Benchmark** [HXA96]. **bending** [BCLP10, Bre95]. **Bereichszerlegung** [Rat00]. **Bergen** [Ano96a]. **Bernoulli** [Leu98b]. **Besov** [Osw90b]. **Besov-Sobolev** [Osw90b]. **best** [JN01a]. **BETI** [BDS08]. **Between** [KNY98a, CG92, CH06, KN02, Nab03, Yu95]. **bez** [Lae92b]. **BGK** [CDL04]. **BI** [HW09, MMC06]. **Bi-CG** [MMC06]. **Bicubic** [Bia93]. **bicubics** [MR99]. **bidomain** [MP09, SPBV05, SP08]. **bifurcation** [CCJ99]. **Biharmonic** [GP79, Osw92a, Wid84, Zha91, Zha92c, Zha92e, AE07, Bjø80, Bra66, Jia96, NMB10, Osw91d, qSnH09]. **bilinear** [Sch74]. **biological** [SK09]. **bioluminescence** [WGZ+10]. **biomechanical** [TV99]. **biomechanics** [KR10, NHD+03]. **Biot** [BQQ09]. **bisection** [Mej94]. **bisectors** [AL97]. **Bitsadze** [JK01, Tut08]. **Bitsadze-Samarski** [Tut08]. **Bitsadze-Samarskii** [JK01]. **Bivariate** [LW98, LS09]. **Björstad** [Xu97]. **Blending** [OSCH00]. **Block** [AP88, BP07, DD94, KKYxx, KALO07, KY89, Man89b, Tar94, Che05, EB99, Fra90, Kok08b, Kok09, KL90, LP95, Ma96]. **block-ADI** [Ma96]. **Block-Centered** [DD94]. **block-parallel** [Che05]. **block-tape** [KL90]. **BLOPEX** [KALO07]. **BLT** [WGZ+10]. **Bodies** [Dan02, DP09]. **Body** [Kra09, GKS98, Hua04, Kok08b, Kok09]. **body-plate** [Hua04]. **Boltzmann** [Cor94, CDL04, LY98, TM94, Tiw00]. **Boltzmann-BGK** [CDL04]. **Boltzmann/Navier** [TM94]. **bonded** [Kok08a]. **Book** [Mur97, Xu97]. **bordering** [Lae98, MN89, Nep84]. **Borg** [Des91]. **both** [Kop89]. **bottom** [BA04]. **Bound** [SST05, DD07]. **bound-constrained** [DD07]. **boundaries** [MT86b, TH01]. **Boundary** [ABLS05, Ano89a, BIP01, BBKM01, BLP91, BPP07, DY02, Fen83, GL88, GK97, HW96, HS96, KRT91a, KR03, KST98, LL00, LZ00, LM72, LB93, Nep86, NP01, OSW06, Poh06, Ste94, TMS87, TP08, Yse85, Yse86c, ZZ02, AQ04, AEZ00, Ast78, BM01, BIM05, Bla00, Bog00, BB02, Bra66, CKL98, Cha97, Che97, CW99b, CM00, Dav01, Dos95, DZ04, Dub01, EG09, EZ98a, EZ98b, EG94, GOD+07, Gas93b, GM98, Geo99, Gil01, GGL04, GP01, GW87b, GHS99, Gro01, GH94c, GZW+00, HTJ88, HXG01, HSW00, Hsi00, HC92, JK01, JN01a, JY01, Jia06, KRT91b, KMN93, KW93, KST01, KM91b, Kuh96, Lai94b, LW00, LP06, LG87, Liu09, Loh92, LOM98, MST96, Mil93, Mró89, NR94, Nep84, Nor01, PWSB91, PPŠ07, QV91, RG03, Røn92, RZ98, SD04]. **boundary**

[Sha94, Shi95, Shi99, Ste95, Ste96, SW97, SW99, Tha95, TV04, Tou01, TV01, Tut08, Vab90, Vab91, WB91, XO94a, pY93, Yan02, YD04, Yu94, hY98]. **boundary-degenerate** [GH94c]. **Boundary-Fitted** [TMS87]. **Boundary-Value** [ABLS05, QV91]. **Bounds** [VPDH08, BS00, BH03, Sch71]. **BPX** [Osw91a, Osw93]. **BPX-preconditioner** [Osw93, Osw91a]. **Brain** [HWP95]. **branched** [LP94a]. **bridging** [XGB10]. **Brussels** [LCHS96]. **BSSOR** [KKYxx]. **Building** [PW02]. **Burgers** [Abd93, PR90, XS09]. **BVPs** [KG90].

C [BB09, CR88]. **C-shaped** [CR88]. **C.E.D.Y.A** [CGCH93, Ano91]. **CA** [BBG+95]. **cable** [LP94a]. **Cahn** [KK03]. **calcium** [NRWF08a, NRWF08b]. **calcul** [Tid92]. **Calculation** [TY98, HW09]. **Calculations** [BGTV89, DL01, Gil01, GP86, Kuh98, SK92]. **California** [IEE94b]. **canonical** [Bog06a, Bog06b]. **CANUM** [CD08]. **capabilities** [ELLL99]. **Capacitance** [Dry81, Dry82, Dry84, QL88a]. **Capital** [PB96]. **cardiac** [PF05]. **Carlo** [ABLS05, AGLK08, ARZ00, ARZ01, N'K91, NS00, WLH97]. **Cartesian** [TT01]. **Cascadic** [BD97, BD96]. **Case** [DW87, GLPE97, MM89b, MM89a, NW91, QL94, Wid88c, Wid89b, BP04, Bjø89, Hua95, Hua96, Kwa03, Osw94, ZH92]. **casting** [LPL00, LLP01, LPSL02, LLP03, LL01, Pie04, PLL05, TD08]. **cathode** [SXyWX09]. **cavities** [HW09]. **cavity** [BK87]. **CEDAR** [Ber89, BB91, Fra90, FGM90]. **Cell** [QFR03, WLH97, CHH04, CWD08, ELV88, Kwa03, Mis94, SXyWX09]. **cell-centered** [ELV88, Mis94]. **cell-centred** [CHH04]. **cells** [AIIV98]. **Centered** [DD94, ELV88, Kwa03, Mis94]. **Centre** [CA02]. **centred** [CHH04]. **CFD** [CP97, HG08, Nor01]. **CG** [HLM93, MMC06]. **CG-Verfahrens** [HLM93]. **CGBI** [KW01]. **Chain** [Kus97]. **Chained** [HKD96]. **challenge** [Lit97]. **Change** [BGT97, TCK91]. **channel** [yGjW09, KW01]. **Chaotic** [Hua97]. **characteristic** [ALW99, Cha05, Cha06, Li06, LY08, RY97, TJDE97, WVE97, Yan00]. **characteristic-based** [WVE97]. **characteristics** [ADP02, Rui98]. **characteristics-based** [ADP02]. **Chast** [EZK84]. **Chaussées** [GGMP88b]. **Chebyshev** [DDS89b, Dev90, SK92, sX96]. **chemical** [Eng09]. **Chimera** [BLP03]. **China** [KNS99, SM98, Ano89a]. **Chislennoe** [EZK84]. **chislennogo** [Il′89]. **Chislennye** [Il′90, Kuz90a, Kuz92]. **Chislennyi** [Kuz88a]. **Choice** [IK95]. **Choosing** [Ste05a]. **circular** [KT96, Wu92]. **circulation** [MSW98, WME+95]. **Class** [Sch96, Xu92b, AR04, FL05, LT03, LT09, Mie88, Rui93, Sch94, WS04]. **Classes** [Il'69]. **Classical** [Wid89b]. **Classification** [LYK07]. **Clifford** [STJ04]. **Climate** [ABBB94]. **cluster** [SV96a]. **clusters** [CP05, KPW96]. **CO** [ACM01]. **coarse** [BDV97, CS95, CSZ96, DNS00a, DNS00b, FC94, HSW10, NV04, Sar03, VTBK97]. **coarse-space** [DNS00b]. **Cocoyoc** [HK+02b]. **Code** [CP97, DRSW04]. **Coefficient** [CH91, MG05, GVT03, Nep92, Osw91c, SLC04, Su94]. **Coefficients** [BGT97, Nep91, Sar93, TK01, AIIV98, BN07, Cha04, Cha06, DP05, GM91, ILW07, KW02, LLPJ08, MB96, Sar03, Zhu08]. **collaborating** [MR94a]. **Collider** [ZC95a]. **Colliding** [QFR03]. **Collision** [WLH97]. **Collocation** [Bia93, BD03a, Qua90, Bla92, Dev90, DHY03, KM91b, LV90, MDTC08, MR99, PHR07, QL88b, YH03, Zam89, Zam92]. **color** [SLLZ94, SB89]. **combination** [AL95, AL96]. **combinations** [Li97]. **combinatorics** [HK98b]. **combined** [KMZ90]. **Combining** [CWD08].

De 91, DS92, Dek01]. **decomposition** [DDS89a, DDS89b, Des90, Des91, DS95b, DGP84, DP08, DGP80, DMPG83, DGPT88, DQ03, DP09, DV01, DW10, DL01, DLN02, DN06, DNR09, Dor91, Dos90, Dos95, DV96, DFS98, DNS00a, DNS00b, DGS01, Dou91, Dou92, DY96, DH97a, DH98, DH97b, DT07, DZ04, Dua06, DTH09, Ego00, EE97a, EG09, EHI+00, EZ98a, EZ98b, EG94, EE97b, ETV94, ETY98, Ewi91, ELLL99, FFN+02, Fal03, FC94, FMT99, FLP00, FML00, FL05, Fen98, Fen07, FGGV08, FSS06, For07, Fra90, jFZ06, FFS98, Fun88, FQZ88, GGM00, GGM02, GL88, GOD+07, GNHR+03, Gas92, Gas93b, Gas93a, GG94, GGQ96, GM98, GK09, GM91, Geo96, Geo99, GRN99, GTZ88, GK02, GVT03, GHP10, GGL04, GRW05, GDP83, GP85, GW87a, GPP94, GPSW97, GLP+06, GZ02, GJS10, GCMGRG09, GW87b]. **decomposition** [GR06, GH89, Goy99, GLS07b, GKB09, Gra02, GK88, GH94a, GH94b, GH95, GH97, GHS93, GHL00, GZW+00, yGjW09, GM09, Gus03, GHF00, GHF01, HLM90b, HL91, HLM92, Haa97a, Haa00, Hac84, Hac03, HTJ88, HB04, HS94a, He96, HK97, HK98a, Hei93b, Hei95, HJ97a, HR09, Her98, HK+02b, HYD03, HDY05, HY10, HSS07, HB10, Hes97, Heu99, Hie05, HND06, HJ97b, HZ93, HS94b, Hol03, HK01, Hop03, HIRW05, HC98, HC02, HC03, HSW00, HC91, HC92, Hu99, HW09, HSW10, Hua93, Hua95, Hua97, Hua04, IP98, Il′91, IL05, IVA93a, IVA93b, IBA02, IK95, IAK06, JK01, Jan07, JN01a, JL08, JY01, Jia96, JN03, JM06a, JM06b, JM06c, JM06d, Jun09, JM09, Jun10, Jun97, KPW95, KPW96, KN02, Kan87, KR90, KL95, KP90, KT96, Kat94, KG87, KGE89, Key99]. **decomposition** [Key03, KX94, Kho96, KMZ90, Kim94, Kim98a, Kim98b, KM91a, KM92, KST01, KW99, Kla06, KR10, KM03, Koj91, Kok07, Kok08a, Kok08b, Kok09, KM91b, Kon90, Kop89, KKNR05, KI96, KJ99, Kor01, Kor02, KR07, KR08, KL90, KW00b, Krä05, Krz05, KHD05, Kuh96, Kuh98, KT05, Kur93, KW08, KT83, Kuz86a, KT87, KL88, Kuz88b, Kuz89c, Kuz89a, Kuz89d, Kuz89b, KKS90, Kuz90b, Kuz90c, Kuz91a, KN92, Kuz98, Kuz02, Kva88, KNP02, KNP03, Lae92a, Lae93a, Lae93b, LG95a, Lag99a, Lag99b, LL04, Lai92, Lai93, Lt93, Lai94a, Lai94b, LCP97, LW98, LW00, LLP01, LPSL02, LLP03, LLPJ08, LT03, Lay92, LR95, LVM88, LS95, LG87, Lee00, Lee06, Leu98b, Leu98a, LS98, LL93b, LL95, LL97, Li97, LZ00, Li06, LLL+06, LY07, LJ07b, LY08, LT09, LY09]. **decomposition** [LL89, pLL90, pLhH93, LSS09a, LC08, LK04, LK98, LW07, LH09, Liu09, LJ06b, LR00, LLS89, LSL89, LLS91, Lü92a, Lü92b, Lü92c, LM06, LM07, LOM98, LMM00, Lui09, LY98, LB94, MSY09, MS10, MvdV01, MW04, MST96, Man90c, ML91, MB96, MD03, MKM86, Mar89a, MQ88, MQ89, McC89b, MG91, MNW08, MB94, Meu88b, Meu89, Meu91a, MGLS91, MC05b, MT86b, MY07, MGMC05, MMC06, MS90, MLB97, MLB99, Mró89, Mró97, MS02, Mur98, N'K91, Nab03, NRWF08a, NPH09, NR94, NRdS95, NN97, Nat95, Nat97, NHD+03, Nep97, Nep07, Nep92, NP93, NMB10, OBG10, OSW06, OM97, Ova07, Ovt93, PAF+97, PdOG99, PV08, PWSB91, PB94, PS88, PS90, PS92, PS95, Par95, Par04, Pas88a, Pas91, Pav99, Pav00, PS09, PT03, PY03, PRL10, PC97]. **decomposition** [PR90, Per92, PS07, Phi90, Phi92, Pie04, Pin92, PP04, PPŠ07, PAJ10, PS00, PHR07, Prá93, Pri95, QX06, Qua87, QL88b, QV90, QLV91, Qua91, Qua94, QV99, Rac95, RS01, RV04, RV05, RVY97, RG03, RHGT10, Roa95, Roe93, RP89, Røn92, Røn99, Rui96, RY97, Rui98, RW92, SSZ98, SFNW02, SK09, Sal04, SV95, SV99b, Sas03, SIR08, Sbo91, SW91, SZB+07, SST96, Sch94, Scr88, Scr91, qSnH09, Sha90, Sha94, SC96, SLC04, Shi95, SV96b, SAM10, SBG96, SR92, SC92, Ste94,

CMW93, CF99, DDF10, DS99, Dan02, DS02, Dav01, DD91, DD94, DT91, DS92, Den97, Den03, DV97, DS95b, DP08, DQV07, DKW08, Dri99, DPW86, Dry88, DW89b, DW90, DW92b, DW93c, DW94c, DG00, Du01, DY02, ES96a, EE97a, EA96, Ewi89a, ELPV93, ELLL99, FR92, Fen00, FGGV08, FSS06, FGRS97, For07, FL00, Fun88, FM99, GGM02, Gar94, GK97, GLPE97, GDP83, GW87a, GGMP88a, GW88, GGMP88b, GKW90, GKM$^+$91, GPSW97, GLP$^+$06, GW87b, GLS07b, GKB09, Gra02, Gri94, GK89, GK91, GK92, GS92a, GS92b, Gro92, GH94a, GH01, GL00, GH03, HLM90a, HLM91a, HLM91b, HLM92, Haa97b, HE95, He96, HKD96, HK98a, HN06, Hei93a, Hem95, HK$^+$02b, Hes98, Heu99, Hie05]. **Domain** [HIRW05, HSW00, HZ03, HSY04, Hu05, Hua93, IP98, IVA93a, IAK06, JK01, JKKM01, JN01b, JN02, JCL07, JM06a, JM06b, JG02, KN02, KR90, KK99, Kar97, KG89, KGE89, KG90, KX95, Key03, KX94, KMZ90, Kim98a, KNY98a, KST98, KDBG95, Kla98, KW00a, KM91b, Kop89, KJ99, Krz05, Kuh96, Kus97, KT87, KL88, Kuz89e, Kuz90b, Kuz91b, Kuz02, KNP02, KNP03, Lae93a, Lag99a, Lag99b, LL00, LL04, Lai93, LS09, Lar99, Lay92, LS95, Leu98a, Leu99, LP94b, LL95, Li97, Li06, LY07, LY08, LCG$^+$10, Lü92a, Lü92b, Lü92c, LMO00, LB94, LB96, MRS04, MST96, Man89a, ML91, Man92b, MB92, Man93, Man90d, Mar89a, Mar01, MR88, MCL02, Mat89, MPRW98, Meu88a, Meu88b, Meu89, Meu91b, Mey90, MG05, Mró89, Mró97, MR92, MR94b, Mu95, Mur98, Mur97, NRdS95]. **Domain** [Nat95, Nat97, Nep86, Nep91, Nep97, Nep07, NO90, NPY$^+$97, OPF97, OL99, PWSB91, PB94, PS95, PS10, PBL08, Pas88b, Pas88a, Pas91, Pav92, Pav99, Pav00, PT03, PC97, Pie04, Pin92, PPŠ07, PS00, QL94, Qua87, QL88b, Qua89, QV90, Qua90, Qua91, QPKW94, QV99, QSV06, RS01, RVY93, RGG06, Røn99, Rui98, SSZ98, SFNW02, SFNW05, SST05, SV99b, Sbo91, SZB$^+$07, Sch98, Sch96, SLC04, SL06, Smi90, SW90, Smi91, Smi92b, SBG96, SBGP98, SW99, ST98, ST00a, SMT08, Tai94, Tai02, TMS87, TRV91, TR93, TMV98, TB97, TW07, TY98, Tha95, Tid95, TCK91, Tor94, TK01, Tos04, TV04, Vab08, Whi00a, Wid88a, Wid89d, Wid96, WK01, WL06, WW89, WL03, XO94b, XO94a, XS94, XZ98, Yan00, YCC10, Ye98a, Ye98b, Yu97a]. **Domain** [hY98, Yu01, YHBM96, Zan87, Zha91, Zha92c, ZS00, ZZYY08, ZW05, Zhu08, ZS01, ZS02, d'H93, AQ04, AH02, Abd93, AK90, Abr96, AE98a, AE98b, ARRS10, AR03, AE07, AF85, AK88, Ago87, Ago90a, AL90b, Ago95, AT95, AD96, Ago98, Ain96a, ALW99, Alb95, AV99, ADC09, AAH06, AL97, AMS09, AKCHW01, AIV95, AP88, AFK02, Bab90, BG91, Bad03, BBM92a, BJ01, BZ96, BSS04, BWA92, BH00b, BM89, BRVC09, BK00, Ber03, Ber04, BK87, Bet07, Bjø89, BMS91, Bla92, BB09, BBM00, Bör89a, BS93a, Bog99, Bog02a, BP06, Bog06b, BP07, Bog08, Bol96, BW89b, Bör89b, BO07, BGT88, BBTD05, BP90, BPWX91b, BPV98, ByS99, Bre99, BS00, BH03, BK06, BDM89, BBM92b, BM93b, BDG$^+$97, BGG$^+$97, Bru91, Buf02, Bul88, BA89]. **domain** [CGK92b, CS96, CFLS94, Cao92, CQ95, CKL98, CDG95, CDG96, CGM01, CHH02, CHH04, CC97, CR85a, CR85b, CR88, CG89, CZ94, CZ95, CS95, CGZ97, CP05, Che88, CS89, Che97, CH09, lCS06, CCJ99, Chi81, CH92, lCjZ93, CH93, CH94a, CH94b, Cic96, CWD08, CM00, Cot91, CMW95, DS95a, DS96, DG07, DDK06, Dar04, DGKL02, DDD91, DD92, De 91, Dek01, DDS89a, DDS89b, DGP84, DGP80, DMPG83, DGPT88, DQ03, DP09, DV01, DW10, DL01, DLN02, DN06, DNR09, Dor91, Dos90, Dos95, DV96, DFS98, DNS00a, DNS00b, DGS01, Dou91, Dou92, DY96, DH97a, DH98, DH97b, DT07, DZ04, Dua06, DTH09, Ego00,

EG09, EHI+00, EZ98a, EZ98b, EG94, EE97b, ETV94, ETY98, Ewi91, FFN+02, Fal03, FC94, FMT99, FLP00, FML00, FL05, Fen98, Fen07, FMW04, FRC+95, Fra90].
domain [jFZ06, Fuj98, FFS98, FQZ88, GL88, GOD+07, GNHR+03, Gas92, Gas93b, GG94, GGQ96, GMH08, GM98, GK09, GM91, Geo96, Geo99, GRN99, GK02, GVT03, GHP10, GGL04, GRW05, GP85, GPP94, GZ02, GJS10, GCMGRG09, GCP91, GR06, GH89, Goy99, GK88, GH94b, GH95, GH97, GHS93, GHL00, GZW+00, yGjW09, GM09, Gus03, GHF00, GHF01, HLM90b, HL91, Haa97a, Haa00, Hac84, Hac03, HTJ88, HB04, HS94a, HK97, Hei93b, Hei95, HJ97a, HR09, Her98, HYD03, HY10, HSS07, HB10, Hes97, HND06, HJ97b, HZ93, HS94b, Hol03, HK01, Hop03, HC98, HC02, HC03, HC91, HC92, Hu99, Hu04, HW09, HSW10, Hua95, Hua04, Il′91, IL05, IVA93b, IBA02, IK95, Jan07, JN01a, JL08, JY01, Jia96, JN03, JG03, JM06c, JM06d, Jun09, JM09, Jun10, Jun97].
domain [KPW95, KPW96, Kan87, KL95, KP90, KT96, KG87, Key99, Kho96, Kim94, Kim98b, KM91a, KM92, KST01, KW99, Kla06, KR10, KM03, Koj91, Kok07, Kok08a, Kok08b, Kok09, Kon90, KKNR05, KI96, Kor02, KR07, KR08, KW00b, Krä05, KHD05, Kuh98, KT05, Kur93, KW08, KT83, Kuz86a, Kuz88b, Kuz89c, Kuz89a, Kuz89d, Kuz89b, KKS90, Kuz90c, Kuz91a, KN92, Kuz98, Kva88, Lae92a, Lae93b, LG95a, Lai92, Lt93, Lai94a, Lai94b, LCP97, LW98, LW00, LLP01, LPSL02, LLP03, LLPJ08, LT03, LR95, LVM88, LG87, Lee00, Lee06, Leu98b, LS98, LL93b, LL97, LZ00, LLL+06, LJ07b, LT09, LY09, LL89, pLL90, pLhH93, LSS09a, LC08, LK04, LK98, LW07, LH09, Liu09, LJ06b, LR00, LLS89, LSL89, LLS91, LM06, LM07, LOM98, LMM00, Lui09, LY98, MSY09, MS10, MvdV01, MW04]. **domain** [Man90c, MB96, MD03, MKM86, MQ88, MQ89, McC89b, MG91, MNW08, MB94, Meu91a, MC05b, MT86b, MY07, MGMC05, MMC06, MS90, MLB97, MLB99, MS02, N'K91, Nab03, NRWF08a, NPH09, NR94, NN97, NHD+03, Nep92, NP93, NZZ94, NMB10, OBG10, OSW06, OM97, Ova07, PAF+97, PdOG99, PV08, PS88, PS90, PS92, Par95, Par04, PS09, PY03, PRL10, PR90, Per92, PS07, Phi90, Phi92, PAJ10, PHR07, Prá93, Pri95, QX06, QL88a, QLV91, Qua94, Rac95, RV04, RV05, RVY97, RG03, RHGT10, Roa95, Roe89, Roe93, Røn92, Rui96, RY97, RW92, SK09, Sal04, SV95, SS98, Sas03, SIR08, SW91, SST96, Sch94, Scr88, Scr91, qSnH09, Sha90, Sha94, SC96, SP03, Shi95, SV96b, Shi99, SR92, SC92, Ste94, Ste95, SW97]. **domain** [Ste05b, SS93, Stu10, Su94, SHS09, SXyWX09, SM10, Suz97, ST00b, Swa93, TJDE97, Tai03, Tal93, TMV94, TM97, TT99b, TV99, TD07, TY07, TH01, Tro96a, Tru85, Tse00, TMNF01, TS01, Tsu96, Tut08, TAA03, Ulb07, USDM06, Vab90, Vab96, Vas90, Vas92, Vas86, VMP10, VIA94, WZC10, WVE97, WY97, Wan01, WA03, Wan06, WR09, WGZ+10, Woh01, Wu92, WS04, XS09, sX96, Xu96, XGB10, XTW10, pY93, Yan96, Yan02, YD04, Yan10, Yot01, Yu94, Yu96, Yu99a, Yu99b, Zam89, Zen96, ZY07, Zha95, ZH91, Zha92a, ZH92, Zha93, ZL96, Zha06, ZC95b, Zho97b, ZHL03, Zhu95, ZZ02, ZD04, ZYD09, Zhu10, ZYD10, dCD00, Ano96a, Des90, Des91, GGM00, HK+02b, KX94, LBCW99, Tho91, Xu97, d'H92, HDY05]. **Domain-** [GGM00]. **Domain-Decomposed** [CK89, CR85a, Roe89, SS98].
Domain-Decomposition [BCT99, GLPE97, TRV91, Alb95, BO07, Fuj98, MG91, Des91, d'H92].
domain-decomposition/upwind [Fuj98].
Domain-oriented [Gri94]. **domaine** [Des90, Des91, GGM00, d'H92]. **Domaines** [De 91, AT95, AD96, Ago98, BGT88, LS98, Tho91]. **domains** [AB88, Ast78, Bou90, CH06, Cot91, GH90, GP01, Gri85, KRT91a,

Kar94, Kuz02, Lui09, MW04, Poh06, RTÈ06, Sch94, TS01, TP08, Yu96, Yu97a, Gee98]. **Dominated** [JN01b, Bor05, CSX05, ETY98, GGQ96, JN03, WC03, Zho97b]. **d'ondes** [Des91]. **d'opérateur** [GGM00]. **double** [PHR07]. **DP** [DW03, DP05, KL05, Kim07, KW02, KPR08, MS07, MD08, Ste05a]. **Drift** [Kla98]. **DSDADI** [LRH97]. **Dual** [Cow93, DP03, ERMD08, FLP00, KRW05, KR06, LW05, Li03, LJ06a, LJ07b, NPH09, Poh06, PGW09, Tos04, TP08]. **dual-primal** [ERMD08, FLP00, KRW05, KR06, Li03, LJ06a, LJ07b, Poh06, Tos04]. **Duality** [Dos95, DNS00a, DNS00b]. **Duality-based** [DNS00b]. **duct** [CKY02]. **durch** [HLM93, Mor56]. **dvukhfaznoi** [Lap89]. **Dynamic** [GJS10, HKD96, LL00, Leu98b, Leu99, NPY+97, YSF03, BIW04, CC97, DDM07, KR03, OBG10, ÖD93, SD07]. **dynamical** [Lum01]. **Dynamics** [BCT99, Cha88, ES96b, NPY+97, AG91, Bre85, Cha89, CDL04, Dub01, FL05, GDP83, GP85, GP87, Gus85, HC98, HC02, IP98, KNG+93, NRWF08a, NRWF08b, NRdS95, QL89, Rah01, Sat01, TR93, TL88, WST09, XG95, DDN95, Mor90]. **dynamischer** [Rat00].

E. [Bel44]. **Each** [Mey90]. **easier** [DHK06]. **EBE** [HF88]. **ECMI** [BMPV08]. **Ecole** [GGMP88b]. **economics** [Gus85]. **Ecuaciones** [CGCH93, Ano91]. **Edge** [TK01, Tos04]. **effect** [DM89]. **Effective** [TG04, KMN93, MDTC08, MMC06]. **Effects** [MR88]. **efficiencies** [FRC+95]. **Efficiency** [Kra09, HZ93]. **Efficient** [AEZ00, ARRS10, BCMP91, BDR02, CMS92, CMS94, DMW01, Ewi89a, FR92, HS96, HSY04, Kuh98, Man89a, MSW98, SW97, TV99, Van93, BEPS88, CWD08, DL10, FC94, Hos07, HMZ94, Jun09, KP90, Kha08, Krä05, MNW08, NMB10, Ste96, ZYD10]. **efficiently** [Wen04]. **effiziente** [Ste96]. **eigen** [CJSS08]. **eigen-oscillation** [CJSS08]. **Eigendecomposition** [CH91]. **eigensolvers** [Kny98b]. **Eigenvalue** [MG05, Bet07, FDS99, GSv03, GCP91, KALO07, Kuz86a, Kuz86b, Ove88]. **eigenvector** [Nie09]. **Eighth** [GLT89]. **Elastic** [Dan02, CF99, DP09, Fen98, Hua04, OX99, VMP10, d'H93]. **Elasticité** [Sob36]. **Elasticity** [BH88, KW00a, Smi90, Smi92b, CS89, De 91, DW10, DKV+10, FHW04, Geo96, Gol03, GR03, KW99, KR06, KW00b, KO90, MMRT02, Roe93, Sar03, Sob36, Zam92]. **élastiques** [d'H92]. **elasto** [EG09]. **elasto-plasticity** [EG09]. **elastodynamics** [LZ00]. **electrical** [AAM06]. **electricity** [Gus85]. **electrolyte** [SXyWX09]. **Electromagnetic** [WLH97, CJSS08, Hei95, Hop03, HW09, LJ06a, LJ07b, NZZ94, PRL10, SS98]. **electromagnetics** [HPS02]. **Electron** [TMS87]. **electronic** [BBCH08]. **electrostatics** [HS94b]. **electrothermomechanical** [Hop03, HIRW05]. **Element** [Ain96b, Ano89a, Ano96b, BGP89, BJNN02, BB06, BKK01, BW90, CPR+03, Cia78, DPW86, Dry88, Dry89, DW91, DW92a, DW93b, EW91, FR92, Fen83, Fen00, Geo73, GW88, Hvi90, JN01b, JN02, Joh87, Man89a, Man92c, Mar01, Mat89, OPF97, Osw91b, Osw92a, PB96, Pav91, Pav93a, Pav93b, RT75, SHJ89a, Smi92b, SF73, SB91, TL88, TK01, Wid87, Wid88a, Wid89a, Wid89d, Yse85, Yse86b, Yse86c, AL95, AL96, AEZ00, AK97, AHP97, Ago95, AT95, Ain96a, AGLK08, Ald09, BCMP91, BJ01, BWA92, BHHA73, BM01, Bes87, BDR02, Bla07, BB02, Boy05, BC07b, Bre95, Bre88, CJSS08, CTU98, CKL98, Cha05, Cha06, Che97, CSX05, Cic96, Dav01, DW94a, DDS89a, DDS89b, DW93a, DPRW93, Dry84, EG09, EHI+00, ELLL99, Fen98, FX04, jFZ06, Fuj98, GGM02, GOD+07]. **element** [GY09, GEVO08, GG94, GAF09, GP85,

GW87a, GLC89a, HL09, Hei03, HDY05, HJ97b, Hua01, Jia06, JT06, JN03, KPR08, KJ99, KNGK04, Kuh96, Kuz05, LP06, LR95, LVM88, LS98, LZ00, LJ06a, LJ07b, LL89, LCO04, LSS$^+$09b, LK98, LH09, LJ06b, LMM00, MR04, Man90a, Man90b, Man90c, Mar07, MD08, MQ88, MS05b, NK01, NC88, OSW06, Osw89b, Osw90a, Pav92, PW00, PY03, Poh06, PS00, Rac95, RXH05, RHGT10, Rui96, RW92, SHJ89b, SX99, SXC02, SK92, ST96, Ste95, SW97, Str72, SB89, ST00b, Tem88, Tha95, The98, Tos04, TS03, Tu07, TP08, VPDH08, WAW88, Wai88, Wid96, Wid97, WK01, XZ99, pY93, Yan00, Yan02, Ye98a, Ye98b, Yse90, Zha92b, ZL96, ZZ02, dCD00]. **element-based** [dCD00]. **Element-by-element** [SHJ89a, TL88]. **element-capacitance** [Dry84]. **element-free** [VPDH08]. **element-level** [LJ06b]. **element/Newton** [MB94]. **elementov** [Lae93c]. **Elements** [CW91, CMW93, Cow93, DD91, GKW90, HS96, Man92a, OR82, Osw91a, PW93, Sar93, BCLP10, BBKM01, BCDM88, Boy05, BPP07, ByS99, BM93b, CMW95, DS95a, GHS99, GH95, GH97, HW96, Hie03, Hie05, Hua95, Hua96, HM00, KR08, LL88, LW05, ML91, MQ89, MOP$^+$93, Osw91d, Osw92b, Osw93, PRPZ06, Pav00, PPŠ07, QLV91, SX97, SK99, Ste94, SW99, Tho91, Tro96b, Whi00b, Tho91]. **Eleventh** [LBCW99]. **ellipsoids** [PGJB03]. **Elliptic** [ABLS05, Ban90, BJNN02, Ben96, Beu05, BS84a, BW89a, BP87, BLP91, Cai89, Cai90, CGK92a, CW92, CGK93, Cai93a, CGK94, CH88, CH91, Cia78, CW91, CWW92, Don91, DPW86, Dry89, DW89b, DW90, DW91, DW92a, DSW93, DW93b, GK97, GW88, Gri85, GH03, HLM91b, HN06, JCL07, KG90, Kus97, Kuz91b, MM89b, MM89a, Mat89, Mur97, Nep86, Nep91, Ong89, Pas88b, RT75, RVY93, Roa95, Sco94, Smi91, SBGP98, Wid84, Wid88a, Wid88c, Wid88b, Wid89a, Wid89d, Wid92, Yse85, Yse86c, AQ04, AH02, AR04, AAH06, Ast78, BJ01, BDOP07, BM93a, BN07, BW84, BW86, BDR00, BDR02, Bog07, BFK$^+$98, BD96, BGT88, BPS86a, BPS86b, BPS87, BPS88, BPS89, CTU98, CES91, CZ94, CS94, CZ95, CEL96, CH92, CH94b, ČPZ00, CM00, CGO76, DS92, DHY03, DGP84]. **elliptic** [DHK06, Dry84, DP03, DW03, DP05, DGS07, ELV88, FGM90, GW87a, GW87b, GK88, GH94a, GH94b, GH94c, GH95, GHL00, HTJ88, HN05, Hei03, HJ97a, HC91, HC92, Hu99, HSW10, ILW07, KL95, KG87, KGE89, KMN93, Kis90, KM91a, KM92, KW02, KRW05, Kla06, Kor02, KR07, KR08, Kuz89d, Lag99b, LW00, LVM88, LTV01, LS05, pLhH93, MDTC08, Mar07, Mat93a, Mat93b, MT86a, Mil00, Mró89, Neč67, Nep84, Nep99, Nep92, NC88, OM97, Pas88a, Pav92, PW00, Rep08, RVY97, Røn92, Rui96, RW93, Sch94, SD04, Shi95, Shi93, Swa93, Tai94, TRV91, Tal93, TS01, Tsu96, Vab90, Vab91, Vaj93, Vas86, Wid96, XO94b, XO94a, sX96, Yan96, Yan02, YD04, Ye98a, hY98, ZH92, Zha93, ZS00, Zha06, ZZYY08, ZD04, Zhu08]. **elliptic-parabolic** [ČPZ00]. **Elliptic-Type** [Kus97]. **Elliptical** [MPS86]. **ellipticheskikh** [Nep90]. **elliptiques** [BGT88, Neč67]. **ELLPACK** [MKP$^+$96]. **Embedding** [Pri95, CGPT05]. **embedding/controllability** [CGPT05]. **Emden** [OD09]. **employing** [GM09]. **enclosed** [KW08]. **energetic** [BM10]. **Energy** [QFR03, MD03]. **engine** [BW89b]. **Engineering** [GPS89, KX95, QPKW94, AGLV80, AAM06, CCCP91, GL86, GL90, GPSW97, HK$^+$02b, KX94, SAM10, Ano89a, GLT89]. **enhance** [GHP10]. **enhanced** [Sar03, TS03]. **entrant** [RS01]. **ENUMATH** [BKR$^+$98]. **environment** [Ala07, Dan91, GG08, Lum01, Pin92]. **Environments** [YSF03, MMC06, WA03]. **EPS** [GT94]. **EPS-APS** [GT94]. **Equation** [BGT97, Dri99, GP79, Lar99, MRS04,

[NW91, Wid87, Haa97a, Osw99]. **extensions** [LKY07]. **Exterior** [DY02, Alb95, Cot91, FMT99, FML00, GM98, HK96, JY01, Yu99a, ZD04]. **external** [GHS93, Tid92, TV01]. **externes** [Tid92]. **extrapolation** [HL09, LSL97, Rüd97, RZ98]. **extrusion** [EE97a].

F.E.M. [SS98]. **FAC** [McC84, MT86a]. **Factorization** [Ben95, DNR09, Il′92, MvdV01]. **factorizations** [Il′91, mM04]. **Factorized** [KYxx, Mil00]. **factors** [Wan06]. **Family** [Mu95, DW93a]. **far** [CW99b]. **far-field** [CW99b]. **Fast** [BLB00, Bia93, CKL98, GHS99, HW95, HST95, Hie03, Kor02, KR08, KS05, LG87, LJ07a, LG95b, McC84, SHHG93, BBM00, CR85a, CWD08, GKR02, HG08, Kho96, KR07, MT86a, RJ07, Sco94, TD08, WK01]. **FastLSM** [RJ07]. **fat** [BIM05]. **fault** [FFN+02]. **faulting** [BIW04]. **FDTD** [KO08]. **FE** [HK96, HW09, KKYxx, KY89, Kuz91b]. **FE-BI** [HW09]. **FE-Problems** [Kuz91b]. **FE/BE** [HK96]. **Fedorenko** [GLS07a]. **Fekete** [PRPZ06]. **FEM** [BP08, Beu02, Beu05, Gas92, HST95, Kuh98, SST96]. **FEM-BEM** [HST95, Kuh98]. **ferromagnetism** [Jan07]. **ferromagnets** [KM03]. **FETI** [DFS98, DGS01, DHSV02, DH05, DHK06, DW03, DP05, FMT99, GS10, GAF09, KL05, Kim07, KW02, KRW05, Kla06, KR06, KPR08, KB08, KHD05, Li03, MS07, MD08, SK99, Ste05a, TK01, Tos04]. **FETI-DP** [DW03, DP05, KL05, Kim07, KW02, KPR08, MS07, MD08, Ste05a]. **FETI-H** [FMT99]. **FETI-preconditioned** [GAF09]. **FHP** [BMS94a]. **Fictitious** [DGKL02, Kuz86a, MKM86, Ast78, BK87, BGG+97, GPP94, JG03, Kuz02]. **field** [Ald09, CW99b, HK96, Hop03, RL04]. **fields** [Ber03, Ber04, Hei95, MGMC05, MMC06]. **Fifth** [CKM+92, GPS89, Hen90]. **fiktivnykh** [BK86]. **filtering** [MSW98]. **filtration** [AK04]. **fin** [MR04]. **find** [AL97, Mej94]. **fine** [KM03]. **finis** [AT95, LS98, Tho91]. **Finite** [Ago88, Ain96b, BGP89, BJNN02, BB06, BKK01, Bog99, BW90, CPR+03, CHH02, Cia78, CW91, CMW93, Cow93, DD91, DD94, DPW86, Dry88, Dry89, DW91, DW92a, DW93b, EW91, FR92, Fen83, Fen00, Geo73, GP85, GW88, GKW90, HK02a, Hvi90, JN01b, JN02, Joh87, LL88, LCO04, LK98, LM06, LM07, Man89a, Man92a, Man92c, Mar01, Mat89, MB94, MOP+93, NK01, OR82, OPF97, Osw91b, Osw92a, PB96, Pav91, PW93, Pav93a, Pav93b, RT75, SFNW05, Sar93, Smi92b, SF73, SB91, WAW88, Wid87, Wid88a, Wid89a, Wid89d, Yse85, Yse86b, Yse86c, AL95, AL96, AEZ00, Ago95, AT95, Ain96a, AGLK08, Ald09, BCMP91, BJ01, BWA92, BHHA73, Bes87, BDR02, BCDM88, BC07b, Bra66, Bre88, CHH04, Cha05, Cha06, CSX05, CH94b, Cic96, CMW95, DS95a, DDD91]. **finite** [DW94a, DM09, DDS89a, DDS89b, DRGM04, DW93a, DPRW93, Dry84, EG09, EHI+00, ELLL99, FFN+02, Fen98, FX04, jFZ06, Fuj98, GGM02, GLS07a, GY09, GEVO08, GG94, GAF09, GW87a, Gra02, GLC89a, GH97, HL09, Hei03, HDY05, HJ97b, Hua90, Hua95, Hua96, HM00, Jia06, JN03, Kop89, KJ99, KNGK04, Kuz05, Kwa03, LW05, LP06, LR95, LVM88, LS98, LLL+06, LJ06a, LJ07b, LY08, LL89, LSS+09b, LH09, LJ06b, LMM00, LL09, Man90a, Man90b, Man90c, ML91, Mar07, MD08, MQ88, MQ89, Mas87, MS05b, MY07, MSW98, Mis94, NZZ94, NC88, Osw89b, Osw90a, Osw91d, OSCH00, PV08, Pav92, PY03, PGW09, PS00, QLV91, Rac95, RXH05, RHGT10, RSN07, RW92, SFNW02, SHJ89b, ST96, SK99, Str72, SB89, ST00b, Tem88, TL88, The98, Tho91, TY07, Tro96b, TS01]. **finite** [TS03, Tu07, Wai88, WZC10, WR09, WME+95, Whi00b, Wid96, Wid97, XZ99,

Yan00, Ye98a, Ye98b, Yse90, Zha92b, ZL96, Zhu95, dCD00, Ano96b, Sam98].
finite-difference
[MSW98, NZZ94, OSCH00, Sam98].
Finite-Element [Ain96b, Yse85, MB94, AT95, BC07b, JN03, LS98, LJ06b].
Finite-element/Newton [MB94].
finite-volume [LL09]. **First**
[DW94b, GP79, GGMP88b, Hem95, JMM+94, Bra66, KGE89, Lay92, MST96, NPH09, Pav99, GGMP88b, Pas88b].
First-Order
[Hem95, KGE89, NPH09, Pav99]. **Fits** [LS09]. **Fitted** [TMS87]. **fixed** [Bad06].
fixed-point [Bad06]. **fiziki**
[AS89, AS90, Il′93, SV99a]. **Flatland** [BM10]. **flaws** [Koj91]. **flexible** [Leu98a].
Flow [FL00, GH98, JKKM01, AL93, AJR+00, AMS09, BWA92, BFK+98, BGG+97, Bru91, CPS99, CTD05, DDK06, Dev90, DL01, DPLPY93, EE97b, Ewi89b, Ewi91, GEVO08, HW95, HG08, HXG01, HE98, HMZ94, JL08, KFK97, Krz05, LL08, Mur98, NV04, OSCH00, PAF+97, PS93, RHGT10, Røn92, SP03, SS93, TV01, Tu07, WPT08, Wu92, Yot01].
flow-structure-thermal [AMS09]. **flows**
[AKCHW01, CKY02, CES00, CW99b, DGKL02, DM09, DGPT88, DL10, GHS93, KFK97, KLM02, Kop89, KW01, LL95, Man06, MPS05, NP01, Phi90, Tid92]. **Fluid**
[BCT99, Cha88, Fen00, FL00, Lum01, AK04, BC07a, BQQ09, Bat01, BS08, Bre85, Cha89, Cor94, CDL04, DDM07, DGPT88, DL10, Ewi89b, Ewi91, FX04, FGGV08, GDP83, GP85, GP86, GP87, Gus85, HMW06, HC98, HC02, JG03, Kha08, KW08, LL95, Man03, MNW08, NRdS95, PGJB03, QL89, Rah01, RHGT10, Røn92, Sat01, TR93, TM97, TL88, WST09, XG95, DDN95, Mor90].
fluid-poroelastic [BQQ09]. **Fluid-Solid**
[Fen00, FX04, Man03]. **fluid-structure**
[BC07a, FGGV08, KW08, MNW08]. **fluids**
[AHP97, BK06, DMPG83, KW08, MOP+93, SHJ89a]. **flux** [GY09, HSS07]. **focusing**
[Tah92]. **Fokker** [yGjW09]. **force** [SD07].
forecast [GZW+00]. **form**
[Bog06a, Bog06b]. **formations** [ADP02].
formed [IU98]. **forms** [Rep08, Sch74].
Formulation
[BGT88, BGTV89, Sme89, AD96, Bet07, CPS99, HW09, KKP07, KMZ90, KL05, LCO04, LL09, Nat97, PGW09, RL04, Tro96a].
formulations [GKS98, HK96, LKY07, Mat93a, Mat93b, TL88, Tid95]. **Fortran**
[DDF10]. **four** [OD09, SB89]. **four-color**
[SB89]. **Fourier** [ARIV97, BIA05, Cao92, qSnH09, VIA94, Zha87]. **Fourteenth**
[DDN95, HK+02b]. **Fourth**
[GKM+91, Hei93a, CES91, Gra02, MD08, Tor94, KNS99]. **Fourth-Order**
[Hei93a, CES91, Gra02]. **Fowler** [OD09].
Fractional [DS02]. **fracture** [LL93b].
fractured [DPLPY93]. **frame**
[CK08, HB10]. **frame-indifferent** [HB10].
frames [CK08]. **framework**
[Fal03, IK95, KKNR05]. **France**
[GGMP88b]. **Francisco** [BBG+95, IEE94b].
free [Bru91, DM09, Dos95, GEVO08, HY10, Jia06, MPS05, PWSB91, Pas91, VPDH08, WB91, XO94a]. **French**
[AT95, AD96, Ago98, BM90, BGT88, CCCP91, De 91, Des90, Des91, GGM00, LS98, Lio78, LP98a, LP98b, Neč67, Poi96, Sob36, Tho91, d'H92, Tid92]. **Frequency**
[Hac91a, AV99, CJSS08, FMT99, FML00, Kim98a]. **friction**
[BIW04, DV96, Kok08b, KHD05, OBG10].
Frictional [Kra09]. **frictionless**
[DP09, Kok09]. **fuel** [SXyWX09]. **full**
[CPS99, LJ07a, TT99b]. **full-wave** [LJ07a].
Fully [HF88, YCC10, KW08, N'K91].
Function [BLB00, MR92, MR94b, ARS95, BA04, HSS07, LL09, Osw90a, PHR07, RSSV90, Tai94, TS03, Vas92, Wen06].
Functional [RM88, Rep08]. **Functions**
[BGP89, Il'69, AE07, BP08, Boy05, BFF96, Dua06, GCMGRG09, IK95, LK04, MN88,

Bog02b, BIA05, BZ06, CGK90, Cai93a, CPR+03, CGL01, CM91, Cia78, Cia94, CW91, DD91, Dri99, DPW86, DW87, Dry88, DW89a, DG00, DY02, FR92, Fen83, FM99, GL00, GH03, HLM90a, HLM91a, HLM91b, Hac91a, HE95, Hem95, Hes56, Hes98, HZ03, Joh87, KNY98a, KW00a, Kra09, Kuz89b, LS09, Lar99, LMO00, MRS04, Man89a, Man92c, Meu91b, Mey90, MPS86, Osw91b, OL99, PS10, Pav91, Pav93a, Pav93b, QL94, RT75, RVY93, SHHG93, SF73, TMS87, TW07, TY98, TK01, Van93, Wid89b, AQ04, Abd93, AK90, AL95, AL96, Abr96, AE98a, AE98b, Abr00, AEZ00, AN95, AK97, AHP97, AF85, AK88, AB88, AL90b, Ago95, AT95, Ago98, ALW99, AR04, ADP02, ADC09]. **method** [AFK02, BCMP91, BG91, Bad03, BIW04, Bad06, BJ01, BGOD02, BGOD05, BM93a, BHHA73, Ber03, BF03, BP04, Ber04, BIM05, Bes87, Bet07, Bla92, Bla07, Bör89a, Bör89b, BM10, BS08, BD96, BB02, BDS08, BCDM88, BBTD05, BPS86b, BFF96, BDM89, BLP03, BGG+97, Buf02, Bul88, CGK92b, CKY02, CJSS08, CFLS94, CTU98, Cha97, Cha05, Cha06, Che88, CS89, Che95, Che05, CH09, lCS06, Chi81, CH93, CH94b, CM00, CGO76, DS95a, DS96, DG07, Dav01, DDM07, DM09, DHY03, DQ03, DLPW02, DL01, DN06, DNR09, DHK06, DY96, Dry82, Dry84, DH97b, DW03, DP05, Dua06, DTH09, Ego00, EG09, EE97b, ETV94, Fal03, FMT99, FLP00, FML00, FL05, Fen98, FX04, FDS99, jFZ06, FFS98, GLS07a, GOD+07, GG03, GY09, GEVO08, Gas92, GK09, GSv03, Geo96]. **method** [GAF09, GGL04, GRW05, GPP94, GZ02, GJS10, GCMGRG09, GKS98, GOS05, GH94c, GH95, GHS93, GHL00, yGjW09, HLM90b, HL91, Hac84, HKK05, HS94a, He96, HK97, HK98a, Hei03, HSS07, Hes97, Hos07, HC98, HC02, HC03, HMZ94, Hu99, HW09, Hua95, Hua96, IBA02, IK95, JL08, JY01, Jia06, JT06, JM06a, JM06b, JM06d, Jun09, JM09, Jun10, KN02, KO08, KR03, KL95, Kat94, Kha08, KMZ90, Kis90, KW99, KM03, Koj91, Kok08b, Kok09, KM91b, KPP09, KJ99, Kor01, KL90, KW01, Krä05, KB08, Krz05, KHD05, Kur93, KL88, Kuz89a, KKS90, KO90, Kuz91a, Kva88, Kwa03, Lae93a, Lae93b, Lai92, Lt93, LW98, LRH97, LV90, LLPJ08, LP07, LVM88, Lee00, LXZ03, Lee06, LPP02, LL93b, Li03, LS05, LJ06a, LY08, LL08, LT09, LY09, LL89, pLL90, pLhH93]. **method** [LSL97, Lio78, Lio88, Lio89, Lio90, LK98, LW07, LH09, Liu09, LJ06b, LSL89, LOM98, LMM00, Lui03, Lui09, LY98, LL09, LB94, MC97, MR04, MW04, Man90a, Man90b, Mar07, MD08, Mar05, MN85, MN89, MT86a, MJC99, MG91, MB94, Mej94, Meu88b, Meu91a, Mil00, MGMC05, MMC06, MS90, MLB97, MLB99, Mró89, MS02, MP08, Mur98, N'K91, NPH09, NR94, NHD+03, Nep84, Nep92, OBG10, Osw92b, Ovt93, PS88, PS90, PS92, Par95, Par04, Pav92, PRL10, PC97, PR90, Poh06, Poi96, Prá93, QX06, QL88b, QL88a, QLV91, Rac95, RV04, RV05, RVY97, RSN07, Roe89, Roe93, Røn92, Rui93, Rui96, RY97, RTÈ06, SFNW02, SIR08, SZB+07, Sch71, Sch94, Sha90, Sha94, SC96, SXC02, SLLZ94, SK92, SK99, Ste05b, Str72, SS93, Stu10]. **method** [Su94, SB89, ST94, SHS09, SXyWX09, ST00b, TJDE97, TT99a, TR93, TD07, TD08, TKH09, Tor94, TV91, Tro96a, Tru85, Tse00, TMNF01, TS01, TP08, VTBK97, Vas90, Vas92, Vas86, VPDH08, WVE97, Wan01, Wan06, WGZ+10, WK01, Wu92, WL03, WS04, XO94b, XO94a, sX96, XC92, Xu96, XGB10, XTW10, pY93, Yan00, Ye98a, Yu94, Yu96, Yu97b, hY98, Zen96, ZY07, Zha95, ZH92, Zha93, Zho97b, zZZhS02, ZHL03, ZW05, ZZ02, ZD04, ZYD09, ZYD10, d'H93, dCD00]. **méthode** [AT95, Ago98, Lio78, Poi96, LS98]. **Methoden** [Lan92]. **méthodes** [Neč67, Des91, GGM00, d'H92]. **Methods** [Abr08, ABLS05, Ago88, Ano89a, BIP01, BLB00, Beu02, BH88, Bjø89, BW90, BY92,

BEPP90, BEPP92, CGK93, CGK94, Cai95, CF88, CAL96, CGPW89, CGPW90, CKM+92, CG92, Cow93, DQV07, Don91, DW91, Dry91, DW92a, DW93b, ES96a, EES83, EW91, Fen00, Gee98, GP79, GGMP88a, GW88, GGMP88b, GLT89, GKW90, GKM+91, GS92a, GS92b, GPS89, HM87, Hu05, JCL07, KX95, Kla98, Kus97, Kuz89e, Kuz91b, LCG+10, LB96, Mar01, MR88, Mat89, McC89a, Meu88a, Mur97, Ned95, Nep86, NO90, OPF97, Osw92a, PW93, Pav93a, Qua90, QPKW94, RGG06, SFNW05, Sar93, Sch96, Sko92, SBGP98, STJ04, Ste01, SW93, Tai02, Wid84, Wid88c, Wid88b, Wid89c, Wid92, Xu89, Xu92b, XZ98, Yse86a, Yu01, Zha91, Zha92d, Zha92e, ZS02, AH02, AF89, AGLV80, AJT+99, AE07, Ago86]. **methods** [Ago87, Ago89, Ago90a, Ago91, Alb95, ARS95, ARZ00, AG91, AKCHW01, AP88, AP96, BFH+95, BC07a, BBM92a, BM89, BK87, BPO95, BW86, BDV97, BDR02, BP07, BS84b, BD97, BB02, Bou90, Boy05, BPWX91b, BPP07, BK06, Bre85, Bre88, BBM92b, BM93b, BDG+97, Bru95, CGKT94, CFS97, CQ90, CZ91, CQ95, CDG95, CDG96, CGM01, CW99a, CHH02, CG89, Cha93, CZ94, CZ95, CS95, CZ96, CSZ96, CGZ97, CP96, CEL96, CE97, CGPT05, CSX05, lCS06, ČPZ00, CWD08, CW99b, CG94, Cot91, CF99, DW94a, DS92, Des91, DRV00, DGP84, DP08, DSV94, DMPG83, Dis05, Dos90, Dou91, DPRW93, DH98, DGS07, EE97a, EHI+00, Eva94, EB99, Ewi89b, ELLL99, FFN+02, FC94, Fen98, Fen07, FGGV08, For07, Fra90, FNS02, Fun88, FQZ88, GGM00, GGM02, GHMR07, Gan08]. **methods** [GNHR+03, GGQ96, GM98, GM91, GVT03, GDP83, GP85, GL86, GP86, GW87a, GP87, GL90, GPSW97, GLP+06, GR06, Gri94, GH94a, GH94b, Gu97, GH97, GM09, GHF00, GHF01, HT91, HN05, Hei93b, Hei95, HK+02b, HY10, HND06, HZ93, HS94b, Hol03, HK01, HIRW05, HSW00, Hsi00, HSW10, Hua97, IKM+99, Il′91, Il′92, IVA93a, JN01a, Jia96, JG03, JL91, Jun97, KPW95, KR90, KP90, Kar94, KX94, Kim98b, Kim07, KW02, KRW05, Kla06, KR06, KR10, KLM02, Kok07, Kok08a, Kon90, Kop89, KI96, KR07, Kor97, KK03, KL07, KNGK04, Kuh96, Kup99, KD92, KT83, Kuz86a, Kuz86b, KT87, Kuz88b, Kuz89c, Kuz89d, Kuz90b, Kuz90c, KN92, KNT94, Kuz05, LG95a, Lae98, LL04, Lai93, Lai94b, LW00, LLP01, LPSL02, LLP03, LL01, LMR94]. **methods** [Leb86, LG87, LP95, LS98, Li97, LZ00, LCO04, LK04, Lü92a, Lü92b, Lü92c, LMM00, Lui99, MST96, MKM86, Mar89a, MS05a, MQ88, MQ89, Mas87, Mat93a, Mat93b, McC84, McC89b, MS05b, Meu89, MGLS91, Mie88, Mil93, MGMC05, Mró97, Nab03, NRWF08a, NRdS95, NN97, NN87, Neč67, NK01, Nep07, NC88, NZ99, NS00, OSW06, OSCH00, OX99, PdOG99, PB94, PB96, PRPZ06, Pav99, Pav00, PW00, PT03, PY03, PR83, Pie04, PLL05, Pop02, PAJ10, PHW00, QX08, Qua87, Qua94, QV99, RL02, Roa95, Rod85, RKL89, Røn99, Roz92, Rüd97, RZ98, RSSV90, REB+92, RW92, SV96a, SV99b, Sbo91, Sch74, qSnH09, SP03, SX99, Shi93, SV96b, Ste94, Ste95, Ste96, SW97, Suz97, TX99, Tai03, TRV91, Tar94, Tem88, Tha95, Tv93]. **methods** [Tos04, TH01, Tsu96, Ulb07, Vab90, Vab08, VG05, WC03, Whi87, Wid96, Wid97, Woh01, Xu92a, XS94, XG95, YH03, Ye98b, Yu97a, Yu99a, Yu99b, Zam89, Zan87, Zha06, ZZYY08, ZC95b, ZG87, Zhu95, d'H92, vdES04, van09, Ano96a, BP08, DDN95, LBCW99, Mor90, Sam98]. **Metod** [Ago90b, Lae93c, Lap89, Nep90, Zav82, KO89, Lae92c]. **metode** [LL93a]. **Metody** [BK86, Kuz85, Mar89b, Il′89, Il′90, Il′93, Kho88a, Kho88b, KS88, Kuz90a, Kuz92, Voe83]. **Mexico** [IEE91, HK+02b]. **MGNet** [Dou92]. **MHD** [DRSW04]. **microelectronic** [ACM08].

[Yot01]. **multibody** [DKV+10, IP98, KHD05]. **multicluster** [Fra90, FGM90]. **multicontact** [Ala07]. **Multidimensional** [AIIV00, Hes98, QL94, HK97, LY07, LSL97, RSVV08]. **Multidisciplinary** [DG00]. **Multidomain** [LP07, Tro96b, ARIV97, Gas93a, LV90, Zam92]. **Multifield** [HMW06]. **Multigrid** [BDY88, Beu02, CWW92, DRV00, FL00, HT91, HS94b, Kra09, Kuz89d, KO90, SXC02, Tai02, Vas86, Yse86a, ZH91, BWA92, BM10, BD96, BD97, BPWX91a, CS94, CGZ97, DL01, Dou92, FDS99, GZW+00, HL91, Hei93b, JT06, KK97, Kon90, Kor97, KK03, Kuz89c, Kwa03, Lou95, MC97, Mie88, Sbo91, SW91, SP08, SX99, SR92, Tai03, WC03, Yu97b, Hen90]. **Multigrid/Domain** [FL00]. **Multilayer** [Lar99, GG08]. **Multilevel** [BY92, BPX90, BP91, CGZ97, CGZ99, CSX05, DDF10, DW91, Goy99, HM87, IL05, Kuz88b, Kuz89e, McC89a, McC89b, Osw91b, SP08, SBGP98, TCK91, Xu89, Zha91, Zha92d, Zha92e, AE07, AP96, BBM00, CZ96, CE97, ETV94, Gri94, GOS05, JL91, LVM88, LSS+09b, Nep97, Osw91c, Osw91e, Osw92b, Osw99, Tai05, The98]. **multimodel** [TM97]. **multiphase** [CES00, WPT08, Yot01]. **multiphysics** [MPS05]. **Multiple** [EA96, Tut08, GHP10, GH94b, KPP09, SK09]. **Multiple-grid** [EA96]. **Multiplications** [Haa97b]. **Multiplicative** [Bjø89, CW93, Bad03, BPS04, FNS02, GO95, KKP07, Nab03]. **multiplier** [BK06, JG03, Kok07, LLPJ08, SHS09]. **multiplier-based** [Kok07]. **multiplier/fictitious** [JG03]. **Multipliers** [HSY04, Hu05, KW00a, CH09, HY10, HK01, Hu04, KW99, Kuz02, LW05, pLhH93, Man03, RHGT10, Swa93, VMP10]. **multipliers-free** [HY10]. **Multipole** [SHHG93, CWD08]. **multiprocessor** [Ala07, BG91, Ber89, BB91, SK09, WAW88, De 91]. **Multiprocessor-computer** [De 91]. **Multiprocessors** [AIIV97, HM87, GL88, IVA93a, Luc88]. **Multiscale** [AH02, Kra09, Ala07, DP08, Eng09, GY09, GLS07b, LL09, OBG10, SM07]. **Multisplitting** [Bru91, Cha97, EB99, Gu97]. **Multisplittings** [Whi87]. **multistructures** [d'H92]. **MuPAD** [HKM+97]. **Mutual** [BC96].

naleganiya [Lae92b]. **nano** [AGLK08]. **nano-MOSFETs** [AGLK08]. **Nash** [SAM10]. **National** [CD08]. **Nationale** [GGMP88b]. **Natural** [DY02, Fen83, Ast78, Bes87, DNS00a, DNS00b, DZ04, IP98, JY01, Liu09, Ste05b, Yu94, Yu95, hY98, Yu99a]. **naturally** [DPLPY93]. **Nauk** [AL90a, AL90b]. **Navier** [ARIV97, Seq95, AAH+00, AIIV97, AIIV98, AIIV00, BQQ09, BVW97, BK06, CFS97, CMX09, Cot91, DDS89a, DV97, DGP80, DMPG83, FHM05, Fuj98, GQS00, GRW05, GPP94, GL00, HG08, Hes97, Hes98, Hua90, Hua93, KT96, KFK97, LW98, LL97, Li03, LCO04, Lou95, LR00, LMM00, Lui99, Man06, Phi92, RV05, SRB01, SR92, TM94, Tid95, Tou01, VIA94]. **Navier-Stokes** [Seq95]. **nd** [HLM91b, RT75]. **nd-order** [HLM91b]. **nearly** [Fen98]. **Nédélec** [Hie03, Hie05]. **nekotorye** [Ago90b]. **nekotorykh** [Lae92b]. **nelineinoi** [Kho88a, Kho88b]. **nepolno** [Kho88a, Kho88b]. **nepolno-nelineinoi** [Kho88a, Kho88b]. **Nested** [Geo73, MB94, Pin92]. **network** [Dou92, Par95]. **networked** [BMS94a]. **Networking** [ACM01, LCHS96]. **Networks** [Leu99, Cha93, HWP95, Lag99a, Lag99b, Leu98b, ÖD93, TAA03]. **Netzwerken** [Rat00]. **Neumann** [DV96, PRPZ06, Tal93, BSS04, Bör89a, Bör89b, DP09, DV96, DW93b, Gol03, GW87b, HN05, HN06, JM06b, KM91a, KM92, PRPZ06, Poi96, SD04, Sha94, Tal93, TMV98, TV04]. **Neumann-Neumann** [DV96, Tal93].

[AL90a, AL90b]. **other** [BPP07]. **otsenke** [Lae92b]. **outer** [Rod85]. **Outflow** [NR94]. **overdetermined** [ST94]. **overhead** [IBA02]. **Overlap** [BW89a, DW92b, DW94c, WGZ+10, BDV97, CDS02, CDS04, Hua95, Hua96, Pav00, Vab90]. **overlapped** [Che05]. **Overlapping** [Abd93, BJNN02, BN07, BPS04, Cai93a, CS96, CW99a, CG88, CG92, CSZ96, DKW08, GS92a, GS92b, GH94b, HK01, KK99, Kuz91b, KN92, Kuz98, LMO00, OL99, PR95, QL94, RVY93, TMS87, TY07, ZHL03, BB06, BRVC09, BPV98, CTD05, CGM01, DS02, DV01, DZ04, FMW04, GHN99, GG03, Geo96, GVT03, GR06, GH95, Haa00, HC03, JY01, Jia06, Jun97, KPP09, Kur93, Lae92a, LT03, LS05, LLL+06, Liu09, LOM98, LMO99, LMM00, Lui09, MGLS91, MT86b, MY07, MLB99, MS02, MP08, NN97, PHR07, Rac95, RV04, RV05, RVY97, SST96, SV96b, Suz97, TT99b, TP08, Vab08, VG05, ZZ02, ZD04, ZS01]. **overlaps** [HK97]. **overrelaxation** [Gus03]. **oxymoron** [Kny98b].

p
[Man89a, Man90a, Man90b, Man90c, Man92c, Pav91, Pav92, PW93, Pav93a, Pav93b, ST98]. **p-Version**
[Man92c, Man89a, Man90a, Man90b, Man90c, Pav91, Pav92, PW93, Pav93a, Pav93b]. **P.** [Xu97]. **P1** [Osw91a, Osw92b]. **Package** [Ban90, DDF10, YHBM96]. **Padé** [HKL06]. **Palazzo** [GT94]. **PARA** [DW94b]. **Parabolic** [Cai89, Cai91, DD91, DD94, Dry91, ELPV93, MPRW98, Meu91b, Yu01, ZS01, ZS02, Abr00, ARRS09, ARRS10, AAII96, AIV95, Bla92, Bog99, BD01, BD03b, Bog04, Bog06a, Bog06b, Cha04, Cha05, Cha06, Che95, lCjZ93, ČPZ00, DG07, DD92, DW94a, DT07, DMW01, EL94, GGM00, GGM02, GK02, GGL04, IVA93a, IVA93b, JM06b, JM06c, JM06d, Jun09, Lae92a, Lae93a, Lae93b, LG95a, Lae98, Lae96, Lee06, Li06, LY07, LSS09a, LH09, LM07, LOM98, LMO99, MSY09, MS10, MG91, Meu91a, MP08, PAJ10, QX08, Rui93, SV95, SV99b, Scr88, SLC04, SV96b, TV91, VG05, WR09, WS04, Yan10, Yu97b, Yu99b, ZW05]. **parabolicheskikh** [Lae92b, Lae92c, LL93a, Lae93c]. **paraboliques** [GGM00]. **Paradigm** [BL04, MvdV01, Pri95]. **Parallel** [AR03, ARZ01, AIV95, AIIV97, ARIV97, BBG+95, BL04, BCT99, BDV96, BMOV96, BMS90, BMS91, BM91, BS92a, BCG94, BL00, BS93b, BPX90, BMS94b, CGKT94, CAL96, CS95, Chi81, Cia94, CRQT86, CRQR89, CW91, CWW92, DDF10, Den03, DKM+92, DW94b, ES96b, Eng09, EJL92, EA96, FR92, FRSY96, FGRS97, Fos96, FL00, jFZ06, GV87, Geo99, GH89, GK89, GK91, Gro92, Hac91b, HB04, HKD96, HK96, HJ97a, HZ93, HXA96, IEE95, IU98, JN01b, JN02, JN03, JCL07, KNG+93, Kan87, KK99, KG90, KDBG95, KKNR05, LRH97, LNT84, Lio99, LLS89, LLS91, MSY09, MC05a, Meu88a, Meu91b, Mey90, MPS86, MY07, NRWF08b, NN92, NPY+97, OPF97, PAF+97, PR95, PF05, Pop02, QFR03, QL88a, RBS94, Rhe09, RHGT10, SW91, Sch96, SL06, SV96b, SHHG93, Smi93, SBGP98]. **Parallel** [Ste95, Str96, SM10, Syd94, The98, WLH97, WDPW04, Yan10, YH03, ZH92, ZS01, ARRS10, AGLK08, ARZ00, AAII96, AIIV98, AIIV00, Bab90, BJ01, BPO95, Bla04, BB09, BS92b, BFK+98, BA09, BS90, BS91, BDM89, BT06, CKL98, CDG95, CDG96, Cha97, Che05, CWD08, DG07, DRSW04, DMP98, DP09, DDGM89, DPLPY93, DPRW93, DMW01, ERMD08, FC94, Fra90, GRN99, Glo95, Goy99, GKS98, GK88, GH94c, Gu97, GZW+00, Haa00, Hei95, HJ97b, IAK06, Kat94, KG87, KR06, KR10, Kuh96, Kuh98, Lai94a, LP94a, LKY07, LL97, LSL97, LSS+09b, LP98b, Lou95, MT05, MvdV01, MJC99, MB94, Meu89, Mil00, MSW98, MMC06, NP93, OBG10, PdOG99, PB94, PS93, Per92, Pin92, Pri95, QX06,

Qua91, RSVV08, Rui98, Sbo91, Sch88, SB89, Suz97, Tah92, TD07, TY07, VIA94, WAW88]. **parallel** [WY97, Wan01, Wan06, Whi87, XS09, XZ99, Yan96, Yan02, Zha92b, Zho97a, mM04, CC95, Koe01, LP98a, MKP+96, Gol03]. **parallèle** [LP98b]. **paralleler** [PS93]. **parallèles** [LP98a]. **Parallelisation** [RSN07]. **Parallelisierung** [HLM93]. **Parallelism** [HKM+97, Sko92, GHP10]. **parallelizable** [SS98]. **Parallelization** [BIP01, CP97, DDK06, ETV94, Hvi90, MSM98, Mie88, TY98, DM09, GEF05, Jun97, Kuh98, KKS90]. **Parallelized** [GOD+07]. **Parallelizing** [GLC89b, IVA93b]. **parameter** [Ago90a, CLYZ99, HK08, Prá93, RZ98, Tru85, Zho97a]. **parameters** [AL90a, Nep99, SD07]. **parareal** [Bal05, FHM05, MT05, SR05, Ulb07]. **Paris** [GGMP88b]. **Part** [Hac91a, Ano93, BHHA73, Bre89, HLM91a, HLM91b, KGTL03, Mat93a, Mat93b, MIL02, MOP+93, STDH02a, STDH02b, STDH02c]. **Partial** [Bab58, Ban90, BJNN02, Ben96, BEPP90, BEPP92, Cai89, CGPW90, CKM+92, CW91, Dub01, GGMP88a, GGMP88b, GKM+91, GN08, HM87, Joh87, McC89a, Meu88a, NO90, Smi90, SBGP98, ARRS10, Bab57, BFH+95, Bal05, BJ01, BL00, BT06, CQ90, CE97, DS92, DPRW93, DY96, DTH09, FMP+98, GW87b, GK88, GR07, GHL00, Hac91b, KG87, Kla06, Kva88, LL04, LNT84, Lay92, LB93, Lü92a, Lü92b, Lü92c, Ma96, Man90a, Meu89, PV08, Qua91, QV99, RVY97, Scr88, Tem88, TV91, Xu09, ZZYY08, ZG87]. **partially** [DD07]. **Particle** [Cot91, ES96a, QFR03, WLH97, BM10, GOS05, TKH09]. **Particle-grid** [Cot91]. **Particle-In-Cell** [QFR03, WLH97]. **particle-particle** [TKH09]. **particle-partition** [GOS05]. **particular** [CP96]. **particulate** [DGKL02]. **partielle** [Bab57]. **Partition** [Sar03, GOS05, Hol03, IP98]. **Partitioned** [Dek01, Wid84, BW84, BW86, BPS86b, Dry84, Kis90]. **Partitioned-GMRES** [Dek01]. **Partitioning** [Dag93, Wai88, CGZ99, Che05, KPW95, KPW96, ST96, Vas86]. **Passing** [ABBB94]. **past** [HMZ94]. **patch** [GHMR07]. **patched** [TB97]. **patching** [Hei93b]. **Patrick** [Mur97]. **patterns** [IU98]. **PCG** [PB94]. **PDE** [AM06, BGH+07, CGO76, DHK06, GH03, HK08, MR94a, Ulb07]. **PDE-based** [HK08]. **PDE-constrained** [Ulb07, BGH+07]. **PDE/ODE** [AM06]. **PDEs** [AAII96, Bla92, Dar04, GLS07b, Hem95, IVA93a, JN01b, JN03, KR90, KS99, LP94b, RVY93, Sch94, VG05]. **Peaceman** [LR95]. **Penalties** [BZ06]. **Penalty** [Hes98, AAH06, Bla92, Hes97, Lae93a, LTV01, Li97]. **pendula** [JG03]. **penetrative** [Tse00]. **Pennsylvania** [KX95, KX94]. **pereobuslavlivatelei** [Kho88b]. **perfectly** [Rah01, TT01]. **Performance** [ACM01, ABBB94, IEE94a, IEE94b, LSS+09b, Luc88, MKP+96, MPS86, WME+95, mM04, GHP10, LCHS96, MC05a, MSM98, PS90, Ste05a, SSH08]. **periodic** [SZB+07]. **Perturbation** [BS93b, LW07]. **perturbations** [OS04]. **Perturbed** [Bog02b, GK97, HP05, Kuz91b, BS92b, Bog99, Bog00, BD01, Bog04, KL95, KPP09, MS02, Scr91, SC96, Shi93, Shi99, TS01]. **PETSc** [KALO07]. **phase** [Bla00, DDK06, KL88, LY08, SXyWX09]. **Phoenix** [ACM03]. **photonic** [LJ07a]. **photoreceptor** [Kha08]. **physically** [Scr91]. **Physics** [Ano89a, Bab58, GT94, Ste01, AL95, AL96, Abr96, AE98a, AE98b, AEZ00, Ago89, Ago91, Bab57, Ego00, Hol03, KR03, Vab08, Zha95]. **Physik** [Bab57]. **Piecewise** [MG05, Shi99]. **piecewise-smooth** [Shi99]. **pipe** [TAA03]. **planar** [Bet07, ST96]. **Planck** [yGjW09]. **Plane** [Wid88b, KO90]. **plasma** [AKCHW01]. **plasticity** [Car97, EG09].

[BGP89, Bel04, Beu02, BS93b, Bog02b, Fen00, GP79, LMO00, MG05, Sch98, Wid84, Zha91, Zha92c, Zha92e, AQ04, AF85, BDOP07, BSS04, Bes87, BS84a, Bog99, BD01, Bog02a, BD03b, Bog04, BP06, Bog08, Bou02, Bra66, Bre95, BLP03, CZ91, Car97, CH97, DG07, De 91, Des90, Des91, DV96, Dry82, Dub01, FX04, FGM90, FDS99, GGL04, GP87, GJS10, Grü01, He96, Hie03, Hua04, JK01, JY01, JT06, KN02, KO08, Kim94, Kim98b, KL05, KM91a, KM92, Kok07, Kok08b, Kok09, KPP09, KL88, KO90, KN92, KNP03, LPL00, LPSL02, LLP03, LV90, LLPJ08, Lee00, Li97, MR04, Mar07, MD08, MG91, MS02, Osw91c, Pie04, PLL05, Poi96, QV90, Sas03, Shi95, Sob98, ST00b, Tro96a, Tut08, TP93, WL06, Yan02, Ye98a, Zam92, ZD04, d'H93]. **Problème** [De 91, Des90, Poi96]. **problèmes** [BGT88, Des91, GGM00, LS98, LP98a]. **Problems** [ABLS05, BIP01, Beu05, BD03a, BH88, BW89a, BKK01, BP87, BEPP90, BLP91, BEPP92, BZ06, CGK92a, CW92, CGK93, Cai93a, CGK94, CH88, CH91, Cia78, CMW92, DD94, DPW86, Dry88, Dry89, DW89b, DW90, DW91, Dry91, DW92a, DSW93, DW93b, DY02, ELPV93, FL00, GK97, GW88, HS96, HN06, HP05, Hei93a, HSY04, HF88, JN02, Kra09, Kus97, Kuz91b, LL00, Leu99, LM72, Mar01, Mat89, Mat93a, Mat93b, Meu91b, MPS86, Nep86, Nep91, Ong89, Pas88b, RT75, Smi91, Smi92a, Smi92b, Smi93, Ste01, Tai02, TMV98, Wid84, Wid88a, Wid88b, Wid89a, Wid89d, Wid92, Xu92b, Yse85, Yse86c, Yu01, ZS01, AH02, Abr08, AL95, AL96, Abr96, AE98a, AE98b, AEZ00, ARRS09, AJT$^+$99, Adž98, Ago86, Ago87, Ago89, Ago90a, Ago91, Ala07, AJR$^+$00, AAH06]. **problems** [AMS09, AIV95, Bad06, BCLP10, BM93a, BGS08, Bet07, BN07, BW84, BW86, BDR00, BDR02, BS92b, Bog00, BFK$^+$98, Bor05, BO07, BD96, BB02, BGT88, BVW97, BPS86a, BPS86b, BPS87, BPS88, BEPS88, BPS89, BP90, BGG$^+$97, CW93, CTU98, CQ95, CES91, CZ94, CS94, CZ95, CS89, CEL96, CE97, CGPT05, CSX05, CCJ99, CH92, lCjZ93, ČPZ00, CM00, Cor90, DS96, DD92, Dev90, DGP84, DP09, Dos95, DFS98, DNS00a, DGS01, DKV$^+$10, Dry84, DP03, DW03, DP05, DGS07, DT07, DMW01, Ego00, EG09, ETY98, ELV88, Ewi91, EL94, FMT99, FML00, FL05, FGGV08, FRSY96, For07, FW01, GGM00, GEVO08, Gas93b, GMH08, GM98, GSv03, GM91, Geo96, Geo99, GAF09, GK02, GTN03, GVT03, GRW05, GP01, GDP83, GP85, GW87a, Gri85, GH94a, GH94b]. **problems** [GH94c, GH95, GHF00, HW95, HTJ88, HXG01, HB04, HL96, HK98a, HN05, Hei03, Hei93b, HK96, HJ97a, HMW06, HB10, HS94b, Hop03, HIRW05, HC03, HC91, HC92, Hu99, HSW10, ILW07, IVA93b, Jia06, JC09, JM06b, JM06c, JM06d, Jun09, Jun10, JL91, KPW95, KPW96, KR03, KCC89, KL95, Kar94, KT96, KGE89, KMN93, KMZ90, Kis90, KW02, KRW05, Kor01, KR07, Kor97, KS05, KHD05, KT05, KD92, Kuz86a, Kuz86b, Kuz89a, Kuz89d, Kuz89b, Kuz90b, Kuz91a, KNT94, KNP02, Lae93a, Lae98, Lae96, Lai93, Lt93, Lai94b, LW00, LLP01, LP06, LL01, LT03, LMR94, LR95, LVM88, LTV01, Leu98b, Leu98a, LS98, LL93b, LS05, Li06, LJ06a, LY07, LJ07b, LY08, pLhH93, LSL97, LB93, LP98a, Lio00, LW07, LOM98, LMO99, MB96, MMRT02, MB94, Meu91a, Mró89]. **problems** [MP08, NPH09, Nep84, Nep99, NP05, Nep92, NZZ94, Nor01, OM97, Pap89, Par95, Pas88a, Pav92, PRL10, PC97, PAJ10, QX08, QV91, RL02, RV04, Rep08, Røn92, Rui96, Rui98, RW93, RTÈ06, SAD$^+$00, SV95, SV99b, SIR08, Seq95, SRB01, SHJ89a, Sha94, SXC02, SV96b, Shi99, Sme89, Ste96, Swa93, Tai94, TX99, TRV91, Tal93, TT99b, TV99, Tar94, Tha95, Tv93, Tsu96, Vab90, Vab91, Vab96, Vab08, Vaj93, Vas86, VMP10, WC03, WY97, Wen04, Wid96, WB91, XO94b,

XO94a, XC92, XS94, Yan96, YD04, Yan10, Yu97b, hY98, Yu99a, Yu99b, Zha95, Zha92a, ZS00, Zha06, ZC95b, Zho97b, mM04]. **problemy** [Kho88a]. **Procedure** [Den97, Den03, LP94b, Cha05, Cha06, DPRW93, DH97a, FQZ88, LR95, MQ88, MQ89, Mor56, Par04, WY97, Yan96, Zhu10]. **Procedures** [DD94, JN99, PB96, Cha04, DD92, DH98, Kim98a, LNT84, MSY09, MS10, Nor01, Ste96, SM10, Yan10]. **Proceedings** [Ano93, Ano96b, Ano96a, Ano96c, BBG+95, GGMP88b, GT94, IEE91, IEE93, IEE94b, IEE95, IEE96, KX95, MMO90, AFL96, DRV00, DW94b, KX94, LCHS96, Lop94, PSB+94, BGPW89, CLM89, GLT89, GKL+09, GPS89, IEE94a, KNS99, SM98, Tra00]. **Process** [CA02, RP89, Sme89]. **processes** [MB94]. **Processeurs** [De 91]. **processibility** [Don89]. **Processing** [BBG+95, GV87, HXA96, CGRS01, DKM+92, NN92, PB94, PSB+94, Qua91, WDPW04, Koe01]. **processor** [PdOG99]. **processors** [DS92, KR90, MSW98]. **Product** [Cai93b, BPWX91b, ÖD93]. **Proektsionno** [Il′89]. **Proektsionno-setochnye** [Il′89]. **Program** [BMS94b, Hvi90]. **programmed** [Luc88]. **Programming** [Fos96, BHHA73, CMV+06]. **Programmnaya** [Bul90]. **programmnoe** [Kuz90a]. **Progress** [BMPV08]. **Projection** [BX91, BS90, BS91, Mor56, Ovt93, Shi95, Xu91]. **Projections** [BM91, HR09]. **Projector** [DD07, Dos90]. **projectors** [DNS00a, KRT91a, KRT91b]. **prolate** [Boy05]. **promising** [BBCH08]. **proof** [Ma96]. **propagation** [CGPT05, Des91, GLP+06, KO08, WC03, mM04]. **Properties** [Il'69, TG04, XZ99]. **proportioning** [Dos95]. **protsessy** [Mar91]. **Proximal** [OM97]. **Pryamoi** [Lae92c]. **pryamykh** [Lae92b]. **pseudo** [Cha97]. **pseudo-boundary** [Cha97]. **pseudodifferential** [TGSS10]. **Pseudospectral** [Phi92, DDS89b, Fun88, GH89, NP93, sX96]. **Putting** [CA02]. **PVM** [BMS94b, CP97]. **Python** [SSH08]. **PyTrilinos** [SSH08].

Quadratic [HN06, DD07]. **quadrature** [Boy05, LW07, WS04]. **quadrilaterals** [GH90, PS92]. **quadtree** [WA03]. **quantities** [VPDH08]. **Quasi** [ABLS05, Ain96b, BP07, NS00]. **quasi-linear** [BP07]. **Quasi-Monte** [ABLS05, NS00]. **Quasi-Uniform** [Ain96b]. **queries** [Don89]. **query** [CGRS01]. **questions** [Il′92]. **queueing** [Cha93]. **queuing** [Par95].

Rachford [LR95]. **Radial** [BLB00, AE07, Dua06, GCMGRG09, LK04, Nie09, PHR07, TGSS10, Wen06, WL06, ZHL03]. **radiation** [BP08, EG94]. **radiative** [N'K91]. **raising** [BM90]. **Randintegralgleichungen** [Ste96]. **random** [ARRS09, TG04, XT04]. **Randwertprobleme** [Ste96]. **rank** [Dor91]. **rascheta** [BK86]. **RASHO** [CDS02]. **rasshchepleniem** [LL93a]. **Rate** [CGK90, Wid89b, CGK92b, FFS98, Gu97, LP95, LSL89, NN97, Osw94, zZZhS02]. **rational** [Kim98b]. **ratios** [AH02, ML91]. **Raviart** [GH95, RXH05]. **Rayleigh** [Sch71]. **razbieniya** [BK86]. **razdeleniya** [Ago90b, Bul90, Nep90]. **raznostei** [Zav82]. **razryvnymi** [Nep90]. **re** [RS01]. **re-entrant** [RS01]. **Reaction** [BZ06, HP05, GKR02, HB04, Kha08, KPP09, PF05, RS01, WVE97]. **Reaction-Diffusion** [HP05, GKR02, HB04, KPP09, PF05, RS01]. **reactive** [WPT08]. **Real** [BGH+07, KPW95, RJ07]. **Real-time** [BGH+07, RJ07]. **realizability** [Tiw00]. **realization** [AF85, AB88]. **realizatsiya** [Bul90]. **realize** [KL88]. **realizing** [AEZ00]. **reciprocity** [TP08]. **reconstruction** [HK08, HKL06]. **Rectangle** [Bia93, CR85a, Pap89]. **rectangles** [DW93a]. **Rectangular**

TT99a, VTBK97, WVE97, Xu92a, Yu99b, zZZhS02]. **Space-Time** [Yu01, GK02, WVE97]. **Spaces** [Ago88, Wid87, Yse85, Yse86b, Yse86c, BH00b, BDV97, Cha93, DW93a, Osw90b, Osw90a, Sar03, Yse90]. **Sparse** [GL81, KK99, Kup99, CS96, EB99, Gus03, KGE89, KYxx, NZ99, SSZ98, SAD+00]. **Sparsity** [NN88, For07]. **Spatial** [NPY+97, WA03]. **spatio** [AD96]. **spatio-temporal** [AD96]. **spatio-temporelle** [AD96]. **SPD** [KK99]. **special** [HT91]. **Spectra** [BM91]. **Spectral** [BM01, CF88, CQ90, GQS00, Hei93b, HC92, Kar97, KPR08, KR07, MG05, Phi90, Qua90, ST96, Tv93, Adž94, Adž98, AIIV00, BP08, BM93a, BM89, Boy05, CJSS08, CZ91, CG89, CGZ99, DDS89a, yGjW09, Hie03, Hie05, HM00, KP90, Kar94, KT96, Kop89, KR08, Kup99, LV90, LP07, LR00, Nat95, Nat97, Pas91, PRPZ06, Pav00, PW00, Qua87, QL88b, SRB01, SP03, SK92, Tse00, TMNF01, Wid96, Wid97, WK01, XG95, Zam89, Zam92, Zan87]. **spectral-element** [Bla07]. **spectral/** [SP03]. **Spectrally** [KW93]. **spectrum** [GCP91]. **Speed** [Yse86a]. **spektralnykh** [KS88]. **Sphere** [ES96a, YCC10, Bla07, BFF96, TGSS10]. **Spherical** [LCG+10]. **spheroidal** [Boy05]. **Spline** [Bia93, BD03a, LS09, BZ96, LW98, Osw89a, Osw90b, SR08]. **split** [LL08]. **Splitting** [DS02, LSL97, Yse86b, Yse86c, BK06, Che95, Che97, ČPZ00, DG07, FLS94, GGM02, GK09, HL09, PAJ10, SLLZ94, TJDE97, Yse90]. **Splittings** [MPRW98, LVM88, Whi00a]. **spots** [IU98]. **spots-and-stripes** [IU98]. **SQP** [Ulb07]. **square** [Ye98a]. **squares** [GP85, Nie09, Pav99, Ye98b]. **SSOR** [KKYxx, KY89]. **SSSR** [AL90a, AL90b]. **stabilised** [Buf02]. **Stability** [RG03, Rüd97, SL06, SR05, Abr00, Bal05, Zhu10]. **Stabilization** [BBM92a, BBM92b, BK00]. **Stabilized** [Bel04, ZS02, Ber03, LSS+09b, LMM00, RL04]. **Stable** [Hes98, JN01b, ZS01, BA09, Hes97, Jun10]. **stage** [EB99]. **staging** [GW89]. **started** [Wu92]. **State** [GKL+09, IEE95, KX95, KX94, ALW99, Cha93, LRH97]. **state-spaces** [Cha93]. **states** [Cor90]. **static** [KR03, LC08, TV91]. **static-regridding** [TV91]. **stationary** [AE98b, AEZ00, LCO04, LMM00]. **status** [Tem88]. **Steady** [RV05, KT96, LRH97, Man06, Røn99]. **Stefan** [KL88]. **Stefana** [Lap89]. **Steklov** [AN95, Ago88, Hu04, Nat95, Nat97, QV91, Yu95]. **stepping** [RY97]. **steps** [MGC09, Yu99b]. **Steuerung** [Rat00]. **stiffened** [d'H93]. **Stochastic** [JCL07, CLYZ99, Eng09, GAF09, JC09, KD92, Lio78, PT03, ZZYY08]. **stochastique** [Lio78]. **Stokes** [AAH+00, AF89, AIIV97, ARIV97, AIIV98, AIIV00, BQQ09, Bel04, BVW97, BP90, BK06, CFS97, CMX09, CZ91, CH94a, CH97, Cot91, DS96, DDS89a, DV97, DGP80, DMPG83, DQ03, Dis05, DQV07, DNR09, FHM05, Fuj98, GS10, GQS00, GRW05, GP79, GPP94, Gol03, GL00, HG08, Hes97, Hes98, Hua90, Hua93, JT06, KT96, KFK97, KL05, Krz05, LW98, LV90, LL97, Li03, LW06, LCO04, Lou95, LR00, LMM00, Lui99, Man06, Pas91, PW02, Phi92, Qua89, QV90, QLV91, RV04, RV05, Røn99, Seq95, SRB01, Sob98, SR92, ST00b, TM94, Tid95, Tou01, VIA94, Ye98b]. **Stokes-Mortar-Darcy** [GS10]. **Stokes/Darcy** [CMX09, Dis05]. **Stokes/Navier** [Li03]. **Strategy** [CA02, BPO95, MPS05, MC05b, PGW09, SK09, TAA03]. **stratified** [TMNF01]. **stream** [LL08]. **streamline** [Gas92, Par04]. **Strings** [Leu99]. **Strip** [QSV06, MC05b, Mró97]. **strip-based** [MC05b]. **stripes** [IU98]. **strips** [Nep92]. **Strömungsberechnung** [PS93]. **strong** [Hua95, LBB10]. **strongly** [GTN03, Hu99]. **Structural** [BH88, Hvi90, Prz85, ADC09,

Che88, FL05, jFZ06, GR06, HPS02, PB96, Prz63, Rhe09, Roz92]. **structure** [AMS09, BC07a, BBCH08, CP96, FGGV08, Jun97, Kok08a, KW08, MNW08, Per92]. **structured** [FRSY96, GG08, LM07]. **structures** [BS93a, KM03, Leu98a, ÖD93, SZB+07, d'H92, d'H93]. **Studies** [Zha91]. **Study** [GLPE97, RV04, RV05, CP96, ILW07, Tid01]. **sub** [PHR07, TP08]. **sub-domain** [PHR07]. **sub-domains** [TP08]. **Subdomain** [Mey90, MPS86, MGLS91, BDV97, BCDM88, BVW97, CP05, Dek01, HLM92, HC03]. **Subdomains** [DKW08, Man93, QL94, Abr08, Bör89a, Bör89b, GH94b, HK97, HC98, HC03, Jia06, KPR08, Kor01, Lae92a, Lio90, MGC09, NN97, QL89, SV96b, Sme89, Vab08, ZH92]. **subgrids** [TB97]. **subproblems** [Vas90]. **Subregions** [DW87, Wid89b, Dry84]. **Subspace** [Nep86, TX99, Hua97, Kat94, LXZ03, MN85, OX99, Vas86, Xu92a, vdES04]. **subspaces** [CK08, GR03, Kuz86b, PS07]. **substationarity** [TP93]. **Substructure** [KNY98a, RW93, SX97]. **Substructured** [BH88]. **Substructures** [Wid84, BW84, BW86, BPS86b, GH94a, Kis90, Mró97, Prz63]. **Substructuring** [Ber04, Dry91, DSW93, PW93, Smi92a, Smi93, Wid88c, Wid88b, BP04, BPS86a, BPS87, BPS88, BPS89, ERMD08, GHMR07, KW93, KLM02, Man90b, Man03, MR99, PW00, RL02, Rhe09]. **Substrukturtechnik** [Lan92]. **Successive** [LXZ03, Gus03]. **Suitable** [FM99, MGMC05]. **Suited** [Cia94]. **summation** [Sco94]. **Summer** [Lop94]. **Sums** [BM91]. **Super** [ZC95a]. **supercomputer** [Bab90, NN88]. **Supercomputing** [HPP88, IEE91, IEE93, HWP95]. **Superconducting** [ZC95a]. **superelement** [GLS07a]. **superlarge** [KCC89]. **supported** [BDS08, BFF96]. **surface** [Bru91, DM09, GEVO08, LL08, MPS05]. **Survey** [Tem88, Bre88, Bru95, CR85b]. **Switzerland** [GT94]. **Symm** [Dri99]. **Symmetric** [HE95, Wid92, AJT+99, BLP91, CDS04, CKL98, Ove88, PHR07, Sha90, Ste95]. **symmetrization** [Sha90]. **Symposium** [AFL96, CGPW90, CKM+92, Gee98, GGMP88b, GKM+91, GPS89, IEE94b, Lop94, Ano93, Ned95]. **synchronous** [LSL89]. **synthesis** [Bou90, Scr88]. **System** [ABBB94, Man90d, RGG06, TMS87, BHHA73, Cha06, CF99, DLN02, GLC89a, Kha08, LXZ03, Mej94, MGMC05, Pav99, SP08, SD04, SC96]. **systèmes** [LP98b]. **Systems** [Ben96, BP87, DV97, Don91, EES83, FR92, FGRS97, FGN91, GL81, GK91, HE95, Hes56, KK99, KG90, QL94, Qua90, RM88, Sch96, YHBM96, BZ96, Bog07, CDS04, Cha05, CLYZ99, EB99, FC94, GS10, GKR02, Gas92, He96, KKYxx, KGE89, KY89, KL90, Lag99a, Lag99b, Lay92, LT09, LP98b, MS05a, MN89, Mie88, MP09, NN87, PW00, Pop02, Prá93, Roz92, SS86, SSZ98, SV96a, SHJ89b, Zha92b, vdES04, van09].

Tailoring [FC94]. **Talk** [BCT99]. **tape** [KL90]. **Task** [ABBB94, PdOG99]. **tasks** [GW89]. **tau** [Zam89]. **tearing** [LP06, LJ06a, OSW06, Poh06]. **Technique** [BP87, CM91, CM92, ADC09, AF04, BZ96, BS92b, BEPS88, BP90, DDK06, Glo95, GM09, Hac03, Lai92, LCP97, LW98, LR00, Lü92a, Lü92b, Lü92c, MT86b, WW89]. **Techniques** [BMOV96, CP97, Ewi89a, ELPV93, FGRS97, KG90, NPY+97, Sch98, Tra00, AM06, ACM08, BRVC09, Bru91, DP08, DGP80, ELV88, Ewi91, FMW04, FSS06, FHW04, GH89, GHS99, GK88, Hac84, HKK05, Hei93b, Hop03, Hua04, KP90, KG87, KGE89, KW93, Kim94, KW00b, MSW98, Nep97, Ova07, Phi90, Phi92, PPŠ07, PS00, Qua87, RS01,

SSZ98, SAD+00, SPBV05, Sco94, VIT05]. **tekhnologiya** [Il′93]. **telegraph** [BA09]. **temporal** [AD96]. **temporelle** [AD96]. **tendencies** [BV92]. **Tennessee** [IEE94a]. **Tenth** [Koe01]. **teorii** [Ago90b, KO89]. **terms** [KGE89]. **Test** [DT91]. **tetrahedral** [Glo95, IAK06]. **Texture** [LG95b]. **TFETI** [DKV+10]. **TH** [HDY05]. **TH-domain** [HDY05]. **Their** [Du01, CDG+92, Gai95, Gu97, HM00, KG87, LP98a, NN87, SW97]. **Theorem** [Wid87, BH00b, Des91, Zha87]. **théorème** [Des91]. **Theorems** [NW91]. **theoretical** [KM01]. **Theoretically** [BDS08]. **Théorie** [Sob36, Neč67]. **Theory** [BY92, DW90, MB92, OR82, Prz85, QV91, Wid88b, Xu89, Abr08, Ago87, ARS95, BGS08, CZ96, CGZ97, CS98, FW01, FNS02, GG94, GO95, HXG01, Hsi00, Il′92, Kup99, KO90, MR94a, Neč67, Osw90a, PHW00, RSSV90, SST96, Sme89, Sob36, Tar94, Mat93b, Sam98]. **there** [Nov99]. **Thermal** [DDS89b, AMS09, DDS89a, Koj91, MR04]. **thermoelasticity** [GOD+07]. **thermomechanical** [AR03]. **thick** [GH90]. **thin** [CP96, CH06, Nep92, OX99, SD07, SR08, The98]. **Third** [CGPW90, IEE94b, SM98, MMO90]. **Three** [AIIV97, Bel04, BA04, Cai93a, CPR+03, Dry89, DW92a, DSW93, DW93b, GS92a, GS92b, HZ03, HF88, JN01b, Man89a, MB92, Man92c, MPS86, Ong89, Pas88b, PW93, Smi91, Smi92a, Smi93, TMS87, WLH97, Wid87, Ald09, Ber03, Ber04, Bes87, BH03, EE97a, Grü01, HB10, Hie05, JN03, Jun09, Kim07, KW02, KR06, Kuz89a, LJ07a, Man90c, MS05b, MGMC05, MMC06, Pas88a, PW00, RL04, SMT08, TRV91, Tos04, TV04, TV01, Zha92a]. **Three-Dimensional** [AIIV97, Dry89, DW93b, HF88, JN01b, MPS86, TMS87, WLH97, BA04, Bes87, BH03, Grü01, HB10, JN03, Jun09, KR06, Kuz89a, LJ07a, TV01, Zha92a]. **three-field** [Ald09, RL04]. **three-fields** [Ber03]. **Time** [DG07, DY02, PS10, Yu01, AV99, BGH+07, Bla92, Eng09, EL94, FHM05, Gan08, GEF05, GK02, HL96, IVA93b, KD92, LJ06b, MT05, MGC09, NZZ94, OS04, PHW00, RJ07, RY97, SC96, Su94, Ulb07, Vab08, VG05, WVE97, Yu99b, ZYD09]. **time-delay** [VG05]. **Time-Dependent** [DY02, IVA93b, SC96, Ulb07, Vab08]. **time-domain** [LJ06b, NZZ94, Ulb07]. **time-harmonic** [AV99, HL96]. **time-varying** [PHW00]. **Timely** [Den97]. **Timoshenko** [Leu99]. **tissue** [ARZ00]. **tomographic** [BBM00]. **tomography** [Grü01, HWP95, Koj91, WGZ+10]. **tool** [HG08]. **Topics** [KM01, BFG+03, HT91, Wir02]. **topography** [BA04]. **topology** [ERMD08]. **Total** [DHK06]. **Trace** [BGTV89, WL03]. **Traces** [BM90, MN88]. **traffic** [SAM10]. **transfer** [CH06, GVT03, N'K91]. **transformation** [KR06]. **Transient** [HB10, NPH09, OBG10]. **Transition** [Gar94]. **translation** [AL90a, AL90b]. **Transmission** [Ben96, LL00, MRS04, AJR+00, DH97a, DH98, LS05, PRL10, QX08, Stu10, ZY07]. **transonic** [PC97]. **Transparent** [LG95b]. **Transport** [ARZ01, BCG94, Abr08, Ago87, ARZ00, Gas93a, GG94, MB94, Sme89, SXyWX09, TAA03, WPT08]. **treatment** [CES00, GR07, TV01]. **treatments** [Kim94]. **Treecode** [Pri95]. **trees** [ARRS09]. **Trefftz** [HDY05]. **trekhmernoi** [KO89]. **Trends** [MR95]. **Tresca** [Kok08b]. **triangular** [DL01, LM07]. **trigonometry** [Gus03]. **Troy** [Lop94]. **tupleware** [Dou91]. **turbomachinery** [LL08]. **turbulence** [KLM02, Str96, TMNF01]. **Twelfth** [Mor90]. **Two** [AIIV97, AIIV98, Beu05, Cai93a, CGL01, DW94a, DKW08, Dry89, GP79, Kra09, MM89b, Man90c, MB92, OS04, Osw91e, Pas88b, Sar93, TK01, VTBK97, Wid89b, Yse90, Yu01, ARRS09, BCMP91, BRVC09, Bre95, BS00, BK06, Buf06, CMX09, CGM01, DDK06, DRGM04, EB99,

References

Abdoulaev:2000:DDN

[AAH+00] Gassan Abdoulaev, Yves Achdou, Jean-Claude Hontand, Yuri Kuznetsov, Olivier Pironneau, and Christophe Prud'homme. Domain decomposition for Navier–Stokes equations. In *ICIAM 99 (Edinburgh)*, pages 191–204. Oxford Univ. Press, Oxford, UK, 2000.

Antonietti:2006:SDD

[AAH06] Paola F. Antonietti, Blanca Ayuso, and Luca Heltai. Schwarz domain decomposition preconditioners for interior penalty approximations of elliptic problems. In *Numerical mathematics and advanced applications*, pages 423–431. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006.

Amitai:1996:PAH

[AAII96] Dganit Amitai, Amir Averbuch, Moshe Israeli, and Samuel Itzikowitz. On parallel asynchronous high-order solutions of parabolic PDEs. *Numerical Algorithms*, 12(1–2): 159–192, 1996. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Anile:2006:SCE

[AAM06] A. M. Anile, G. Alì, and G. Mascali, editors. *Scientific computing in electrical engineering*, volume 9 of *Mathematics in Industry*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006. ISBN 3-540-32861-0. Selected papers of the 5th International Conference (SCEE) held in Capo D'Orlando, September 5–9, 2004, European Consortium for Mathematics in Industry (Berlin).

Agoshkov:1988:NRM

[AB88] V. I. Agoshkov and S. N. Buleev. Numerical realization of the method of decomposition of domains. In *Conjugate equations and perturbation algorithms (Russian)*, pages 3–27. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1988.

Alekseev:1995:AMC

[AB95] Anatoly S. Alekseev and Nicolay S. Bakhvalov, editors. *Advanced mathematics: computations and applications*. NCC Publisher, Novosibirsk, Russia, 1995.

Ambrosiano:1994:HCS

[ABBB94] J. J. Ambrosiano, J. Bolstad, A. J. Bourgeois, and J. C. Brown. High-performance climate system modeling using a domain and task decomposition message-passing approach. In IEEE [IEE94a], pages 397–405. ISBN 0-8186-5680-8, 0-8186-5681-6. LCCN QA76.5 .S244 1994. IEEE catalog number 94TH0637-9.

Abdoulaev:1993:ODD

[Abd93] G. S. Abdoulaev. Overlapping domain decomposition method for Burgers equation. *East-West Journal of Numerical Mathematics*, 1(2):75–86, 1993. CODEN EJNMEA. ISSN 0928-0200.

Acebron:2005:DDS

[ABLS05] Juan A. Acebrón, Maria Pia Busico, Piero Lanucara, and Renato Spigler. Domain decomposition solution of elliptic boundary-value problems via Monte Carlo and quasi-Monte Carlo methods. *SIAM Journal on Scientific Computing*, 27(2):440–457, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/60069`.

Abrashin:1996:DDM

[Abr96] V. N. Abrashin. On a domain decomposition method in the solution of problems in mathematical physics. *Differ. Uravn.*, 32(5):652–660, 718, 1996. ISSN 0374-0641.

Abrashin:2000:ASD

[Abr00] V. N. Abrashin. Asymptotic stability of the decomposition method for parabolic equations. *Differ. Uravn.*, 36(7): 909–918, 1005, 2000. ISSN 0374-0641.

Abramov:2008:MIS

[Abr08] B. D. Abramov. Methods of iterations on subdomains for neutron transport theory problems. *Transport Theory Statist. Phys.*, 37(2–4):208–235, 2008. CODEN TTSPB4. ISSN 0041-1450.

ACM:2001:SHP

[ACM01] ACM, editor. *SC2001: High Performance Networking and Computing. Denver, CO, November 10–16, 2001.* ACM Press and IEEE Computer Society Press, New York, NY 10036, USA and 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. ISBN 1-58113-293-X. LCCN ????

ACM:2003:SII

[ACM03] ACM, editor. *SC2003: Igniting Innovation. Phoenix, AZ, November 15–21, 2003.* ACM Press and IEEE Computer Society Press, New York, NY 10036, USA and 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. ISBN 1-58113-695-1. LCCN ????

Ali:2008:DDT

[ACM08] G. Alì, M. Culpo, and S. Micheletti. Domain decomposition techniques for microelectronic modeling. In *Progress in industrial mathematics at ECMI 2006*, volume 12 of *Math. Ind.*, pages 500–505. Springer-

Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Agouzal:1996:FDD

[AD96] Abdellatif Agouzal and Naïma Debit. Une formulation de décomposition de domaines spatio-temporelle pour les équations hyperboliques. (French) [A formulation of spatio-temporal domain decomposition for hyperbolic equations]. *Comptes Rendus des Séances de l'Académie des Sciences. Série I. Mathématique*, 323(8):957–960, 1996. CODEN CASMEI. ISSN 0764-4442 (print), 1778-3577 (electronic).

Amini:2009:MSD

[ADC09] A. Mobasher Amini, D. Dureisseix, and P. Cartraud. Multi-scale domain decomposition method for large-scale structural analysis with a zooming technique: application to plate assembly. *International Journal for Numerical Methods in Engineering*, 79(4):417–443, 2009. CODEN IJNMBH. ISSN 0029-5981.

Almeida:2002:NCB

[ADP02] César Almeida, Jim Douglas, Jr., and Felipe Pereira. A new characteristics-based numerical method for miscible displacement in heterogeneous formations. *Comput. Appl. Math.*, 21(2):573–605, 2002. ISSN 0101-8205. Special issue on multi-scale science (Nova Friburgo, 2000).

Adzic:1994:DDS

[Adž94] Nevenka Adžić. Domain decomposition for spectral approximation of the layer solution. *Zb. Rad. Prirod.-Mat. Fak. Ser. Mat.*, 24(1):347–357, 1994. ISSN 0352-0900.

Adzic:1995:ALS

[Adž95] Nevenka Adžić. The approximation of layer solution by Legendre type polynomials. *Zb. Rad. Prirod.-Mat. Fak. Ser. Mat.*, 25(2):151–158, 1995. ISSN 0352-0900.

Adzic:1998:MIS

[Adž98] Nevenka Adžić. Monotone iterations for spectral approximation of nonlinear layer problems. *Novi Sad J. Math.*, 28 (2):43–52, 1998. ISSN 0352-0900.

Abrashin:1998:IDD

[AE98a] V. N. Abrashin and A. A. Egorov. On an iterative domain decomposition method for solving problems of mathematical physics. II. *Differ. Uravn.*, 34(2):266–271, 288, 1998. ISSN 0374-0641.

Abrashin:1998:IMD

[AE98b] Vyacheslav N. Abrashin and Andrei A. Egorov. Iterative method of domain decomposition in solving stationary problems of mathematical physics. In *Second International Conference*

"Finite-Difference Methods: Theory and Application", Vol. 1 (Minsk, 1998), pages 7–11. Natl. Acad. Sci. Belarus Inst. Math., Minsk, 1998.

Adibi:2007:NSB

[AE07] H. Adibi and Jaafar Es'haghi. Numerical solution for biharmonic equation using multilevel radial basis functions and domain decomposition methods. *Applied Mathematics and Computation*, 186(1):246–255, March 1, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Abrashin:2000:EIS

[AEZ00] V. N. Abrashin, A. A. Egorov, and N. G. Zhadaeva. Efficient iterative schemes for realizing the finite element method for stationary boundary value problems in mathematical physics. *Izvestiia vysshikh uchebnykh zavedenii. Matematika*, 11:3–11, 2000. CODEN IVUMBY. ISSN 0021-3446.

Agapov:1985:PAR

[AF85] V. K. Agapov and S. A. Finogenov. On a problem on the approximate realization of a method for domain decomposition. In *Methods of numerical and applied mathematics (Russian)*, pages 4–16. Akad. Nauk SSSR Vychisl. Tsentr, Moscow, USSR, 1985.

Aboulaich:1989:IMS

[AF89] R. Aboulaïch and M. Fortin. Iterative methods for the solution of Stokes equations. In *Proceedings of the Eighth International Conference on Computing Methods in Applied Sciences and Engineering (Versailles, 1987)*, volume 75(1–3) of *Computer Methods in Applied Mechanics and Engineering*, pages 317–324. Elsevier, Amsterdam, The Netherlands, 1989. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Arina:2004:DDT

[AF04] Renzo Arina and Marco Falossi. Domain decomposition technique for aeroacoustic simulations. *Applied Numerical Mathematics: Transactions of IMACS*, 49(3–4): 263–275, June 2004. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Axelsson:2002:SSP

[AFK02] O. Axelsson, I. Faragó, and J. Karátson. Sobolev space preconditioning for Newton's method using domain decomposition. *Numerical Linear Algebra with Applications*, 9(6–7):585–598, September/ November 2002. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Alefeld:1996:SCV

[AFL96] Götz Alefeld, Andreas Frommer, and Bruno Lang, edi-

tors. *Scientific computing and validated numerics: proceedings of the International Symposium on Scientific Computing, Computer Arithmetic and Validated Numerics SCAN-95 held in Wuppertal, Germany, September 26–29, 1995*, volume 90 of *Mathematical Research*. Akademie Verlag, Berlin, Germany, 1996. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Anderson:1991:VDV

[AG91] Christopher R. Anderson and Claude Greengard, editors. *Vortex dynamics and vortex methods*, volume 28 of *Lectures in Applied Mathematics*. AMS, Providence, RI, USA, 1991. ISBN 0-8218-1135-9.

Aldegunde:2008:DPF

[AGLK08] Manuel Aldegunde, Antonio J. García-Loureiro, and Karol Kalna. Development of a 3D parallel finite element Monte Carlo simulator for nano-MOSFETs. In *Large-scale scientific computing*, volume 4818 of *Lecture Notes in Comput. Sci.*, pages 115–122. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Absi:1980:NME

[AGLV80] E. Absi, R. Glowinski, P. Lascaux, and H. Veysseyre, editors. *Numerical methods for engineering. 2*. Dunod, Paris, France, 1980. ISBN 2-04-012194-3. Lectures given at the Second International Congress held in Paris, December 1–5, 1980, Collection Dunod Technique. [Dunod Technical Series].

Agoshkov:1986:DDM

[Ago86] V. I. Agoshkov. Domain decomposition methods in problems of hydrodynamics. In *Computing methods in applied sciences and engineering, VII (Versailles, 1985)*, pages 303–310. North-Holland Publishing Co., Amsterdam, The Netherlands, 1986.

Agoshkov:1987:ROD

[Ago87] V. I. Agoshkov. Reflection operators and domain decomposition methods in transport theory problems. *Soviet J. Numer. Anal. Math. Modelling*, 2 (5):325–347, 1987. ISSN 0169-2895. Translated from the Russian.

Agoshkov:1988:PSO

[Ago88] V. I. Agoshkov. Poincaré–Steklov operators and domain decomposition methods in finite dimensional spaces. In Roland Glowinski, Gene H. Golub, Gérard A. Meurant, and Jacques Périaux, editors, *First International Symposium on Domain Decomposition Methods for Partial Differential Equations (Paris, 1987)*, pages 73–112. SIAM, Philadelphia, PA, USA, 1988.

Agoshkov:1989:DDM

[Ago89] V. I. Agoshkov. Domain decomposition methods in problems of mathematical physics. In *Conjugate equations and perturbation algorithms in problems of mathematical physics (Russian)*, pages 31–90. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1989.

Agoshkov:1990:ASD

[Ago90a] V. I. Agoshkov. The application of some of domain decomposition methods to nonstationary problems and to problems with small parameter. In *Conjugate equations in problems of mathematical physics (Russian)*, pages 133–149. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, Russia, 1990.

Agoshkov:1990:MRO

[Ago90b] V. I. Agoshkov. *Metod razdeleniya oblasti: nekotorye rezultaty teorii i prilozhenii*, volume 257 of Preprint *[Preprint]*. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, Russia, 1990. 40 pp. With an English summary.

Agoshkov:1991:DDM

[Ago91] V. I. Agoshkov. Domain decomposition methods in problems of mathematical physics. In *Computational processes and systems, No. 8 (Russian)*, pages 3–51. Nauka, Moscow, Russia, 1991.

Agouzal:1995:AHF

[Ago95] Abdellatif Agouzal. Augmented hybrid finite element method for domain decomposition. *Applicable Analysis*, 59 (1–4):341–347, 1995. CODEN APANCC. ISSN 0003-6811.

Agouzal:1998:NMD

[Ago98] A. Agouzal. Une nouvelle méthode de décomposition de domaines. (French) [A new method of domain decomposition]. *Rend. Sem. Fac. Sci. Univ. Cagliari*, 68:19–25, 1998. CODEN RSFSAK. ISSN 0370-727X.

Aarnes:2002:MDD

[AH02] Jørg Aarnes and Thomas Y. Hou. Multiscale domain decomposition methods for elliptic problems with high aspect ratios. *Acta Math. Appl. Sin. Engl. Ser.*, 18(1):63–76, 2002. ISSN 0168-9673.

Achdou:1997:MEM

[AHP97] Yves Achdou, Jean-Claude Hontand, and Olivier Pironneau. A mortar element method for fluids. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 351–360. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Averbuch:1997:HST

[AIIV97] A. Averbuch, L. Ioffe, M. Israeli, and L. Vozovoi. Highly scalable two- and three-dimensional Navier–Stokes

parallel solvers on MIMD multiprocessors. *The Journal of Supercomputing*, 11 (1):7–39, March 1997. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0920-8542&volume=11&issue=1&spage=7; http://www.wkap.nl/oasis.htm/141469`.

Averbuch:1998:TDP

[AIIV98] A. Averbuch, L. Ioffe, M. Israeli, and L. Vozovoi. Two-dimensional parallel solver for the solution of Navier–Stokes equations with constant and variable coefficients using ADI on cells. *Parallel Computing*, 24(5–6):673–699, June 1, 1998. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cas/tree/store/parco/sub/1998/24/5-6/1310.pdf`.

Averbuch:2000:MPS

[AIIV00] Amir Averbuch, Ludimila Ioffe, Moshe Israeli, and Lev Vozovoi. Multidimensional parallel spectral solver for Navier–Stokes equations. In *Parallel solution of partial differential equations (Minneapolis, MN, 1997)*, volume 120 of *IMA Vol. Math. Appl.*, pages 123–158. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000.

Ainsworth:1996:HDD

[Ain96a] Mark Ainsworth. A hierarchical domain decomposition preconditioner for *h-p* finite element approximation on locally refined meshes. *SIAM Journal on Scientific Computing*, 17(6):1395–1413, November 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/27257`.

Ainsworth:1996:PBD

[Ain96b] Mark Ainsworth. A preconditioner based on domain decomposition for *h-p* finite-element approximation on quasi-uniform meshes. *SIAM Journal on Numerical Analysis*, 33(4):1358–1376, August 1996. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/25822`.

Averbuch:1995:PIN

[AIV95] A. Averbuch, M. Israeli, and L. Vozovoi. Parallel implementation of non-linear evolution problems using parabolic domain decomposition. *Parallel Computing*, 21(7):1151–1183, July 11, 1995. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/parco/cas_sub/browse/browse.cgi?year=`

1995&volume=21&issue=7&aid=991.

Alboin:2000:DDS

[AJR+00] Clarisse Alboin, Jérôme Jaffré, Jean E. Roberts, Xuewen Wang, and Christophe Serres. Domain decomposition for some transmission problems in flow in porous media. In *Numerical treatment of multiphase flows in porous media (Beijing, 1999)*, volume 552 of *Lecture Notes in Phys.*, pages 22–34. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000.

Achdou:1999:DDM

[AJT+99] Y. Achdou, C. Japhet, P. Le Tallec, F. Nataf, F. Rogier, and M. Vidrascu. Domain decomposition methods for non-symmetric problems. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 3–17 (electronic). DDM.org, Augsburg, 1999.

Agapov:1988:SVD

[AK88] V. K. Agapov and Yu. A. Kuznetsov. On some versions of the domain decomposition method. *Soviet J. Numer. Anal. Math. Modelling*, 3(4): 245–265, 1988. ISSN 0169-2895. Translated from the Russian.

Abdulaev:1990:DDM

[AK90] G. S. Abdulaev and Yu. A. Kuznetsov. The domain decomposition method for nonstationary semiconductor equations. In *Numerical methods and software (Russian)*, pages 4–14. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, Russia, 1990.

Achdou:1997:AME

[AK97] Yves Achdou and Yuri Kuznetsov. Algorithms for the mortar element method. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 33–42. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Akhmetzyanov:2004:UMM

[AK04] A. V. Akhmetzyanov and V. N. Kulibanov. Unconventional mathematical models of fluid filtration in porous media. *Avtomat. i Telemekh.*, 8 (??):3–13, 2004. ISSN 0005-2310.

Auweter-Kurtz:2001:HDD

[AKCHW01] Monika Auweter-Kurtz, Cristian A. Coclici, Jörg Heiermann, and Wolfgang L. Wendland. Heterogeneous domain decomposition methods for compressible magneto-plasma flows. In *Hyperbolic problems: theory, numerics, applications, Vol. I, II (Magdeburg, 2000)*, volume 141 of *Internat. Ser. Numer. Math., 140*, pages 89–98. Birkhäuser Verlag, Basel, Switzerland, 2001.

Agoshkov:1990:GSA

[AL90a] V. I. Agoshkov and V. I. Lebedev. Generalized Schwartz algorithm with variable parameters [translation of Preprint 19, Akad. Nauk SSSR, Otdel. Vychisl. Mat., Moscow, 1981]. *Soviet J. Numer. Anal. Math. Modelling*, 5(1):1–26, 1990. ISSN 0169-2895. Soviet Journal of Numerical Analysis and Mathematical Modelling.

Agoshkov:1990:VAD

[AL90b] V. I. Agoshkov and V. I. Lebedev. Variational algorithms of the domain decomposition method [translation of Preprint 54, Akad. Nauk SSSR, Otdel. Vychisl. Mat., Moscow, 1983]. *Soviet J. Numer. Anal. Math. Modelling*, 5 (1):27–46, 1990. ISSN 0169-2895. Soviet Journal of Numerical Analysis and Mathematical Modelling.

Aguilar:1993:DDM

[AL93] G. Aguilar and F. Lisbona. Domain decomposition in models of viscous-nonviscous flow. In *III Congress on Applied Mathematics/XIII Congress on Differential Equations and Applications (Spanish) (Madrid, 1993)*, pages 269–274. Univ. Politéc. Madrid, Madrid, Spain, 1993.

Abrashin:1995:CAD

[AL95] V. N. Abrashin and S. N. Lèkhtikov. On the combination of the alternating direction method and the finite element method for the solution of problems in mathematical physics. I. *Differ. Uravn.*, 31(7):1161–1169, 1269, 1995. ISSN 0374-0641.

Abrashin:1996:CAD

[AL96] V. N. Abrashin and S. N. Lèkhtikov. On the combination of the alternating direction method and the finite element method for the solution of problems in mathematical physics. II. *Differ. Uravn.*, 32 (7):889–897, 1004, 1996. ISSN 0374-0641.

Ashcraft:1997:UDD

[AL97] Cleve Ashcraft and Joseph W. H. Liu. Using domain decomposition to find graph bisectors. *BIT Numerical Mathematics*, 37(3):506–534, September 1997. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.mai.liu.se/BIT/contents/bit37.html`. Direct methods, linear algebra in optimization, iterative methods (Toulouse, 1995/1996).

Alart:2007:CME

[Ala07] Pierre Alart. Contact on multiprocessor environment: from multicontact problems to multiscale approaches. In *Computational contact mechanics*, volume 498 of *CISM Courses and Lectures*, pages 163–217. Springer Wien, New York,

NY, USA and Vienna, Austria, 2007.

Albuquerque:1995:SDD

[Alb95] C. Albuquerque. Some domain-decomposition methods for the exterior Poisson equation. In *Trends in applications of mathematics to mechanics (Lisbon, 1994)*, volume 77 of *Pitman Monogr. Surveys Pure Appl. Math.*, pages 299–310. Longman, Harlow, UK, 1995.

Alduncin:2009:AAT

[Ald09] Gonzalo Alduncin. Analysis of augmented three-field macrohybrid mixed finite element schemes. *Anal. Theory Appl.*, 25(3):254–282, 2009. ISSN 1672-4070.

Al-Lawatia:1999:NCD

[ALW99] Mohamed Al-Lawatia and Hong Wang. A nonoverlapping characteristic domain decomposition method for unsteady state advection-diffusion equations. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 151–158 (electronic). DDM.org, Augsburg, 1999.

Ali:2006:DDT

[AM06] G. Alì and S. Micheletti. Domain decomposition techniques and coupled PDE/ODE simulation of semiconductor devices. In *Scientific computing in electrical engineering*, volume 9 of *Math. Ind.*, pages 407–411. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006.

Alefeld:1996:IG

[AMM96] G. Alefeld, O. Mahrenholtz, and R. Mennicken, editors. *ICIAM/GAMM 95*. Akademie-Verlag, Berlin, Germany, 1996. ISSN 0044-2267 (print), 1521-4001 (electronic). Numerical analysis, scientific computing, computer science, Z. Angew. Math. Mech. **7**6 (1996), suppl. 1.

Aulisa:2009:CDD

[AMS09] Eugenio Aulisa, Sandro Manservisi, and Padmanabhan Seshaiyer. A computational domain decomposition approach for solving coupled flow-structure-thermal interaction problems. In *Proceedings of the Seventh Mississippi State — UAB Conference on Differential Equations and Computational Simulations*, volume 17 of *Electron. J. Differ. Equ. Conf.*, pages 13–31. Southwest Texas State Univ., San Marcos, TX, USA, 2009.

Achdou:1995:PMM

[AN95] Yves Achdou and Frédéric Nataf. Preconditioners for the mortar method based on local approximations of the Steklov–Poincaré operator. *Mathematical models and methods in applied sciences*, 5

(7):967–997, 1995. CODEN MMMSEU. ISSN 0218-2025.

Anonymous:1989:CUS

[Ano89a] Anonymous, editor. *China–US Seminar on Boundary Integral and Boundary Element Methods in Physics and Engineering*. Chinese Academy of Sciences, Academy of Mathematics and System Sciences, Beijing, 1989. CODEN JCMMEB. ISSN 0254-9409. J. Comput. Math. **7** (1989), no. 2.

Anonymous:1989:MS

[Ano89b] Anonymous, editor. *Mathematical sciences*, volume 32 of *Shuli Kexue [Mathematical Sciences. Research Reports IMS]*. Academia Sinica Institute of Mathematical Sciences, Chengdu, PRC, 1989. 19 pp.

Anonymous:1990:SJN

[Ano90] Anonymous, editor. *Soviet Journal of Numerical Analysis and Mathematical Modelling*. VSP, Zeist, The Netherlands, 1990. ISSN 0169-2895. 1–90 pp. Selected translations, Soviet J. Numer. Anal. Math. Modelling **5** (1990), no. 1.

Anonymous:1991:ADX

[Ano91] Anonymous, editor. *Actas del XII C.E.D.Y.A. (Congreso de Ecuaciones Diferenciales y Aplicaciones)/II Congreso de Matematica Aplicada*. Universidad de Oviedo Departamento de Matemáticas, Oviedo, Spain, 1991. ISBN 84-7468-736-5. Held in Oviedo, September 23–27, 1991.

Anonymous:1993:PII

[Ano93] Anonymous, editor. *Proceedings of ISNA '92—International Symposium on Numerical Analysis. Part II*. Academy of Sciences of the Czech Republic Mathematical Institute, Prague, Czech Republic, 1993. ISSN 0862-7940. Invited section lectures from the symposium held in Prague, August 31–September 4, 1992, Appl. Math. **3**8 (1993), no. 6.

Anonymous:1996:PICb

[Ano96a] Anonymous, editor. *Proceedings of the 9th International Conference on Domain Decomposition Methods in Bergen, Norway*. DDM.org, Augsburg, 1996. Held in Bergen, Norway, June 4–7, 1996, Available electronically at http://www.ddm.org/DD9/index.html.

Anonymous:1996:PICa

[Ano96b] Anonymous, editor. *Proceedings of the International Conference on the Optimization of the Finite Element Approximations*. Nauka, Moscow, Russia, 1996. ISSN 0234-0879. Held in St. Petersburg, June 25–29, 1995, Mat. Model. **8** (1996), no. 9.

Anonymous:1996:PPM

[Ano96c] Anonymous, editor. *Proceedings of the Prague Mathemat-*

ical Conference 1996. Icaris Ltd., Prague, 1996. In honor of the 70th birthdays of Ivo Babuška, Miroslav Fiedler, Jaroslav Kurzweil and Vlastimil Pták, Held in Prague, July 8–12, 1996.

Anonymous:1998:HHH

[Ano98a] Anonymous, editor. *Hisenkei hatten hōteishiki to sono ōyō*. Kyoto University Research Institute for Mathematical Sciences, Kyoto, Japan, 1998. Sūrikaisekikenkyūsho Kōkyūroku No. 1061 (1998).

Anonymous:1998:SKA

[Ano98b] Anonymous, editor. *Sūchi keisan arugorizumo no kenkyū*. Kyoto University Research Institute for Mathematical Sciences, Kyoto, Japan, 1998. Sūrikaisekikenkyūsho Kōkyūroku No. 1040 (1998).

Anonymous:2000:HHN

[Ano00] Anonymous, editor. *Hembibum hōteishiki no sūchi kaihō to sono shūhen*. Kyoto University Research Institute for Mathematical Sciences, Kyoto, Japan, 2000. Sūrikaisekikenkyūsho Kōkyūroku No. 1145 (2000).

Axelsson:1988:BPD

[AP88] O. Axelsson and B. Polman. Block preconditioning and domain decomposition methods. II. *Journal of Computational and Applied Mathematics*, 24 (1–2):55–72, 1988. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). Iterative methods for the solution of linear systems.

Axelsson:1996:AMI

[AP96] Owe Axelsson and Ben Polman, editors. *Algebraic multilevel iteration methods with applications. Vol. I, II.* Katholieke Universiteit Nijmegen, Department of Mathematics, Nijmegen, 1996.

A:2004:DDM

[AQ04] Dang Quang A and Vu Vinh Quang. A domain decomposition method for solving an elliptic boundary value problem. In *Methods of complex and Clifford analysis*, pages 309–319. SAS Int. Publ., Delhi, 2004.

Adamidis:2003:PCT

[AR03] Panagiotis A. Adamidis and Michael M. Resch. Parallel coupled thermomechanical simulation using hybrid domain decomposition. In *Computational science and its applications—ICCSA 2003. Part I*, volume 2667 of *Lecture Notes in Comput. Sci.*, pages 472–482. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2003.

Alaa:2004:DDM

[AR04] Nour Eddine Alaa and Jean Rodolphe Roche. Domain decomposition method for a class of nonlinear elliptic equation with

arbitrary growth nonlinearity and data measure. In *Numerical mathematics and advanced applications*, pages 79–88. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2004.

Averbuch:1997:PIM

[ARIV97] A. Averbuch, K. Ruvinsky, M. Israeli, and L. Vozovoi. Parallel implementation of multidomain Fourier algorithm for 2-D and 3-D Navier–Stokes equations. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 433–441. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Acebron:2009:DDS

[ARRS09] Juan A. Acebrón, Ángel Rodríguez-Rozas, and Renato Spigler. Domain decomposition solution of nonlinear two-dimensional parabolic problems by random trees. *Journal of computational physics*, 228(15):5574–5591, 2009. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Acebron:2010:EPS

[ARRS10] Juan A. Acebrón, Ángel Rodríguez-Rozas, and Renato Spigler. Efficient parallel solution of nonlinear parabolic partial differential equations by a probabilistic domain decomposition. *Journal of Scientific Computing*, 43(2):135–157, 2010. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic).

Ali:1995:CMF

[ARS95] Rosihan M. Ali, Stephan Ruscheweyh, and Edward B. Saff, editors. *Computational methods and function theory 1994*, volume 5 of *Series in Approximations and Decompositions*. World Scientific Publishing Co. Inc., River Edge, NJ, USA, 1995. ISBN 981-02-2129-0. Papers from the Second International Conference (CMFT '94) held at the Universiti Sains Malaysia, Penang, March 21–25, 1994.

Alme:2000:DDM

[ARZ00] Henry J. Alme, Garry Rodrigue, and George Zimmerman. Domain decomposition methods for parallel laser-tissue models with Monte Carlo transport. In *Monte Carlo and quasi-Monte Carlo methods 1998 (Claremont, CA)*, pages 137–148. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000.

Alme:2001:DDM

[ARZ01] Henry J. Alme, Garry H. Rodrigue, and George B. Zimmerman. Domain decomposition models for parallel Monte Carlo transport. *The Journal of Supercomputing*, 18(1):

5–23, January 2001. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0920-8542&volume=18&issue=1&spage=5; http://www.wkap.nl/oasis.htm/319612`.

Agoshkov:1988:SUA

[AS88] V. I. Agoshkov and V. P. Shutyaev, editors. *Sopryazhennye uravneniya i algoritmy vozmushchenii*. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1988. 168 pp.

Agoshkov:1989:SUA

[AS89] V. I. Agoshkov and V. P. Shutyaev, editors. *Sopryazhennye uravneniya i algoritmy vozmushchenii v zadachakh matematicheskoi fiziki*. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1989. 206 pp.

Agoshkov:1990:SUV

[AS90] V. I. Agoshkov and V. P. Shutyaev, editors. *Sopryazhennye uravneniya v zadachakh matematicheskoi fiziki*. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, Russia, 1990. 150 pp.

Astrakhatsev:1978:MFD

[Ast78] G. P. Astrakhatsev. Method of fictitious domains for a second-order elliptic equation with natural boundary conditions. *U.S.S.R. Computational Math. and Math. Phys.*, 18: 114–121, 1978.

Agouzal:1995:MEF

[AT95] Abdellatif Agouzal and Jean-Marie Thomas. Une méthode d'éléments finis hybrides en décomposition de domaines. (French) [A hybrid finite-element method in domain decomposition]. *Mathematical modelling and numerical analysis = Modelisation mathématique et analyse numérique: M^2AN*, 29 (6):749–764, 1995. CODEN RMMAEV. ISSN 0764-583X (print), 1290-3841 (electronic).

Alonso:1999:ODD

[AV99] Ana Alonso and Alberto Valli. An optimal domain decomposition preconditioner for low-frequency time-harmonic Maxwell equations. *Mathematics of Computation*, 68(226):607–631, April 1999. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/jourcgi/jour-pbprocess?fn=110&arg1=S0025-5718-99-01013-3&u=/mcom/1999-68-226/`.

Ames:1992:CAM

[AvdH92] W. F. Ames and P. J. van der Houwen, editors. *Computational and applied mathematics. II.* North-Holland Pub-

lishing Co., Amsterdam, The Netherlands, 1992. ISBN 0-444-89702-X. Differential equations, Papers from the IMACS Thirteenth World Congress held in Dublin, July 1991.

Buleev:1989:ISD

[BA89] S. N. Buleev and V. I. Agoshkov. Investigation of some domain decomposition algorithms. In *Conjugate equations and perturbation algorithms in problems of mathematical physics (Russian)*, pages 91–111. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1989.

Belibassakis:2004:TDG

[BA04] K. A. Belibassakis and G. A. Athanassoulis. Three-dimensional Green's function for harmonic water waves over a bottom topography with different depths at infinity. *Journal of Fluid Mechanics*, 510:267–302, 2004. CODEN JFLSA7. ISSN 0022-1120.

Borhanifar:2009:USP

[BA09] A. Borhanifar and Reza Abazari. An unconditionally stable parallel difference scheme for telegraph equation. *Math. Probl. Eng.*, pages Art. ID 969610, 17, 2009. ISSN 1024-123X.

Babuska:1957:SAP

[Bab57] Ivo Babuška. Über Schwarzsche Algorithmen in partielle Differentialgleichungen der mathematischen Physik. (German) [On the Schwarz algorithms in partial differential equations of mathematical physics]. *ZAMM*, 37(7–8):243–245, 1957.

Babuska:1958:SAP

[Bab58] Ivo Babuška. The Schwarz algorithm in partial differential equations of mathematical physics. *Czech. Math. J.*, 83 (8):328–343, 1958. In Russian.

Baber:1990:HAD

[Bab90] Marc Baber. Hypertasking: automatic data parallel domain decomposition on the Intel parallel supercomputer. Technical report CS/E 90-006, Oregon Graduate Institute of Science and Technology, Dept. of Computer Science and Engineering, Beaverton, OR, May 1990. 16 pp.

Badea:2003:MSD

[Bad03] Lori Badea. On a multiplicative Schwarz domain decomposition method for variational inequalities. In *Current topics in continuum mechanics. II*, pages 11–40. Ed. Acad. Române, Bucharest, 2003.

Badea:2006:DDM

[Bad06] Lori Badea. Domain decomposition method for fixed-point problems. *An. Univ. Bucureşti Mat.*, 55(1):5–16, 2006. ISSN 1010-5433.

Bal:2005:CSP

[Bal05] Guillaume Bal. On the convergence and the stability of the parareal algorithm to solve partial differential equations. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 425–432. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Bank:1990:PSP

[Ban90] Randolph E. Bank. *PLTMG: A Software Package for Solving Elliptic Partial Differential Equations. Users' Guide 6.0*. SIAM, Philadelphia, PA, USA, 1990. ISBN 0-89871-255-6. ix + 162 pp. LCCN QA377 .B26 1990.

Bathe:2001:CFS

[Bat01] K. J. Bathe, editor. *Computational fluid and solid mechanics. Vol. 1, 2*. Elsevier Science B.V., Amsterdam, The Netherlands, 2001. ISBN 0-08-043964-0.

Bramley:1991:SOD

[BB91] Randall Barry Bramley and James Bordner. Sequential optimization and data distribution for ARC2D on the Cedar hierarchical multiprocessor. Technical Report CSRD 1128, University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, September 1991. 48 pp.

Boubendir:2002:DDM

[BB02] Y. Boubendir and A. Bendali. Domain decomposition methods for solving scattering problems by a boundary element method. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 321–328. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Bendali:2006:NOD

[BB06] Abderrahmane Bendali and Yassine Boubendir. Non-overlapping domain decomposition method for a nodal finite element method. *Numerische Mathematik*, 103(4): 515–537, June 2006. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Blatt:2009:CCD

[BB09] Markus Blatt and Peter Bastian. C++ components describing parallel domain decomposition and communication. *International Journal of Parallel, Emergent and Distributed Systems: IJPEDS*, 24 (6):467–477, 2009. CODEN ???? ISSN 1744-5760 (print), 1744-5779 (electronic).

Bencteux:2008:DDE

[BBCH08] Guy Bencteux, Maxime Barrault, Eric Cancès, and

William W. Hager. Domain decomposition and electronic structure computations: a promising approach. In *Partial differential equations*, volume 16 of *Comput. Methods Appl. Sci.*, pages 147–164. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Brezzi:2003:NMA

[BBCM03] F. Brezzi, A. Buffa, S. Corsaro, and A. Murli, editors. *Numerical mathematics and advanced applications*. Springer-Verlag Italia, Milan, 2003. ISBN 88-470-0180-3.

Bailey:1995:PSS

[BBG+95] D. H. Bailey, P. E. Bjorstad, J. R. Gilbert, M. V. Mascagni, R. S. Schreiber, H. D. Simon, V. J. Torczon, and L. T. Watson, editors. *Proceedings of the Seventh SIAM Conference on Parallel Processing for Scientific Computing (San Francisco, CA, USA)*. SIAM, Philadelphia, PA, USA, 1995. ISBN 0-89871-344-7. LCCN QA76.58.S55 1995.

Beskos:2001:BEX

[BBKM01] D. E. Beskos, C. A. Brebbia, J. T. Katsikadelis, and G. D. Manolis, editors. *Boundary elements XXIII*, volume 10 of *Advances in Boundary Elements*. WIT Press, Southampton, UK, 2001. ISBN 1-85312-863-5. Papers from the 23rd International Conference on the Boundary Element Method held in Lemnos, May 7–9, 2001.

Baiocchi:1992:SGM

[BBM92a] C. Baiocchi, F. Brezzi, and L. D. Marini. Stabilization of Galerkin methods and applications to domain decomposition. In *Future tendencies in computer science, control and applied mathematics (Paris, 1992)*, volume 653 of *Lecture Notes in Comput. Sci.*, pages 345–355. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1992.

Brezzi:1992:SGM

[BBM92b] F. Brezzi, C. Baiocchi, and L. D. Marini. Stabilization of Galerkin methods and applications to domain decomposition. *Lecture Notes in Computer Science*, 653:345–??, 1992. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Boag:2000:MDD

[BBM00] Amir Boag, Yoram Bresler, and Eric Michielssen. A multilevel domain decomposition algorithm for fast $O(N^2 \log N)$ reprojection of tomographic images. *IEEE Transactions on Image Processing*, 9(9):1573–1582, 2000. CODEN IIPRE4. ISSN 1057-7149 (print), 1941-0042 (electronic).

Boursier:2005:MUW

[BBTD05] I. Boursier, A. Bourgeat, and D. Tromeur-Dervout. Modelling of an underground waste disposal site by upscaling and simulation with domain decomposition method. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 521–528. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Baker:1996:MES

[BC96] Brenda S. Baker and Edward G. Coffman, Jr. Mutual exclusion scheduling. *Theoretical Computer Science*, 162 (2):225–243, August 20, 1996. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/tcs/cas_sub/browse/browse.cgi?year=1996&volume=162&issue=2&aid=2234`.

Badia:2007:SFS

[BC07a] Santiago Badia and Ramon Codina. On some fluid-structure iterative algorithms using pressure segregation methods. Application to aeroelasticity. *International Journal for Numerical Methods in Engineering*, 72(1):46–71, 2007. CODEN IJNMBH. ISSN 0029-5981.

Bradji:2007:ODC

[BC07b] Abdallah Bradji and Ahmed-Salah Chibi. Optimal defect corrections on composite nonmatching finite-element meshes. *IMA Journal of Numerical Analysis*, 27(4):765–780, 2007. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).

Boulbrachene:1988:MFE

[BCDM88] M. Boulbrachene, Ph. Cortey-Dumont, and J.-C. Miellou. Mixing finite elements and finite differences in a subdomain method. In *First International Symposium on Domain Decomposition Methods for Partial Differential Equations (Paris, 1987)*, pages 198–216. SIAM, Philadelphia, PA, USA, 1988.

Bjorstad:1994:PDDa

[BCG94] P. E. Bjørstad, W. M. Coughran, Jr., and E. H. Grosse. Parallel domain decomposition applied to coupled transport equations. Numerical Analysis Manuscript 94-3, AT&T Bell Laboratories, Murray Hill, NJ, USA, 1994. URL `ftp://netlib.bell-labs.com/netlib/att/cs/doc/94/4-03.ps.gz`.

Bates:1996:DEA

[BCLP96] P. W. Bates, S.-N. Chow, K. Lu, and X. Pan, editors. *Differential equations and applications*. International Press,

Cambridge, MA, 1996. ISBN 1-57146-048-9.

BeiraodaVeiga:2010:RBP

[BCLP10] L. Beirão da Veiga, C. Chinosi, C. Lovadina, and L. F. Pavarino. Robust BDDC preconditioners for Reissner–Mindlin plate bending problems and MITC elements. *SIAM Journal on Numerical Analysis*, 47(6):4214–4238, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Babuska:1991:EPV

[BCMP91] I. Babuška, A. Craig, J. Mandel, and J. Pitkäranta. Efficient preconditioning for the p-version finite element method in two dimensions. *SIAM Journal on Numerical Analysis*, 28(3):624–661, June 1991. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Barth:1999:PDD

[BCT99] T. J. Barth, T. F. Chan, and W.-P. Tang. Parallel domain-decomposition preconditioning for computational fluid dynamics (invited talk). *Lecture Notes in Computer Science*, 1573:176–202, 1999. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Bornemann:1996:CMM

[BD96] Folkmar A. Bornemann and Peter Deuflhard. The cascadic multigrid method for elliptic problems. *Numerische Mathematik*, 75(2):135–152, 1996. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Bornemann:1997:CMM

[BD97] Folkmar A. Bornemann and Peter Deuflhard. Cascadic multigrid methods. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 205–212. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Boglaev:2001:DDS

[BD01] Igor Boglaev and Vic Duoba. Domain decomposition for a singularly perturbed problem with parabolic layers. In *Topics in applied and theoretical mathematics and computer science*, Math. Comput. Sci. Eng., pages 7–12. WSEAS, Athens, 2001.

Bialecki:2003:NDD

[BD03a] Bernard Bialecki and Maksymilian Dryja. A nonoverlapping domain decomposition method for orthogonal spline collocation problems. *SIAM Journal on Numerical Analysis*, 41(5):1709–1728, October 2003. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/39979`.

Boglaev:2003:DDA

[BD03b] Igor Boglaev and Vic Duoba. Domain decomposition for an advection–diffusion problem with parabolic layers. *Applied Mathematics and Computation*, 146(1):27–53, December 30, 2003. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Bristeau:1997:ECD

[BDG+97] M. O. Bristeau, E. J. Dean, R. Glowinski, V. Kwok, and J. Periaux. Exact controllability and domain decomposition methods with non-matching grids for the computation of scattering waves. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 291–308. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Brezzi:1989:PDR

[BDM89] Franco Brezzi, Craig C. Douglas, and L. Donatella Marini. A parallel domain reduction method. *Numerical Methods for Partial Differential Equations*, 5(3):195–202, 1989. CODEN NMPDEB. ISSN 0749-159X.

Baraket:2007:SLD

[BDOP07] Sami Baraket, Makkia Dammak, Taieb Ouni, and Frank Pacard. Singular limits for a 4-dimensional semilinear elliptic problem with exponential nonlinearity. *Annales de l'Institut Henri Poincaré. Analyse non linéaire*, 24(6):875–895, 2007. ISSN 0294-1449.

Bjorstad:2000:ASA

[BDR00] Petter E. Bjørstad, Maksymilian Dryja, and Talal Rahman. Additive Schwarz for anisotropic elliptic problems. In *Parallel solution of partial differential equations (Minneapolis, MN, 1997)*, volume 120 of *IMA Vol. Math. Appl.*, pages 279–293. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000.

Bjorstad:2002:ESM

[BDR02] P. E. Bjørstad, M. Dryja, and T. Rahman. Efficient Schwarz methods for elliptic mortar finite element problems. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 305–312. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Bouchala:2008:TSS

[BDS08] Jiri Bouchala, Z. Dostál, and M. Sadowská. Theoretically supported scalable BETI method for variational inequalities. *Computing*, 82 (1):53–75, April 2008. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=`

0010-485X&volume=82&issue=1&spage=53.

Bjoerstad:1996:PIS

[BDV96] P. E. Bjoerstad, M. Dryja, and E. Vainikko. Parallel implementation of a Schwarz domain decomposition algorithm. *Lecture Notes in Computer Science*, 1184:46–??, 1996. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Bjorstad:1997:ASM

[BDV97] Petter E. Bjørstad, Maksymilian Dryja, and Eero Vainikko. Additive Schwarz methods without subdomain overlap and with new coarse spaces. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 141–157. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Bank:1988:HBM

[BDY88] Randolph E. Bank, Todd F. Dupont, and Harry Yserentant. The hierarchical basis multigrid method. *Numerische Mathematik*, 52:427–458, 1988.

Bellman:1944:NIS

[Bel44] Richard Bellman. A note on an inequality of E. Schmidt. *Bull. Amer. Math. Soc.*, 50:734–736, 1944.

Belgacem:2004:SDD

[Bel04] Faker Ben Belgacem. A stabilized domain decomposition method with nonmatching grids for the Stokes problem in three dimensions. *SIAM Journal on Numerical Analysis*, 42(2):667–685, April 2004. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/36882.

Benamou:1995:DDM

[Ben95] J.-D. Benamou. A domain decomposition method for the polar factorization of vector-valued mappings. *SIAM Journal on Numerical Analysis*, 32(6):1808–1838, December 1995. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Benamou:1996:DDM

[Ben96] Jean-David Benamou. A domain decomposition method with coupled transmission conditions for the optimal control of systems governed by elliptic partial differential equations. *SIAM Journal on Numerical Analysis*, 33(6):2401–2416, December 1996. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/26710.

Bramble:1990:DDM

[BEPP90] James H. Bramble, Richard E. Ewing, Rossen R. Parashkevov, and Joseph E. Pasciak. Domain decomposition methods

for problems with partial refinement. Technical report, Cornell University, 1990.

Bramble:1992:DDM

[BEPP92] James H. Bramble, Richard E. Ewing, Rossen R. Parashkevov, and Joseph E. Pasciak. Domain decomposition methods for problems with partial refinement. *SIAM Journal on Scientific and Statistical Computing*, 13(1):397–410, January 1992. CODEN SIJCD4. ISSN 0196-5204.

Bramble:1988:PTE

[BEPS88] James H. Bramble, Richard E. Ewing, Joseph E. Pasciak, and Alfred H. Schatz. A preconditioning technique for the efficient solution of problems with local grid refinement. *Comput. Meth. Appl. Mech. Engin.*, 67: 149–159, 1988.

Berry:1989:ADC

[Ber89] Michael Berry. Algorithmic design on the CEDAR multiprocessor. Technical Report CSRD 851, University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, February 1989. 33 pp.

Bertoluzza:2003:AST

[Ber03] Silvia Bertoluzza. Analysis of a stabilized three-fields domain decomposition method. *Numerische Mathematik*, 93 (4):611–634, February 2003. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Bertoluzza:2004:SPT

[Ber04] Silvia Bertoluzza. Substructuring preconditioners for the three fields domain decomposition method. *Mathematics of Computation*, 73(246):659–689, April 2004. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/mcom/2004-73-246/S0025-5718-03-01550-3/home.html`; `http://www.ams.org/mcom/2004-73-246/S0025-5718-03-01550-3/S0025-5718-03-01550-3.dvi`; `http://www.ams.org/mcom/2004-73-246/S0025-5718-03-01550-3/S0025-5718-03-01550-3.pdf`; `http://www.ams.org/mcom/2004-73-246/S0025-5718-03-01550-3/S0025-5718-03-01550-3.ps`; `http://www.ams.org/mcom/2004-73-246/S0025-5718-03-01550-3/S0025-5718-03-01550-3.tex`.

Bespalov:1987:FEM

[Bes87] A. N. Bespalov. The finite element method for a problem on the natural oscillations of a three-dimensional resonator. In *Numerical methods and mathematical modeling (Russian)*, pages 82–103. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1987.

Betcke:2007:GFD

[Bet07] Timo Betcke. A GSVD formulation of a domain decomposition method for planar eigenvalue problems. *IMA Journal of Numerical Analysis*, 27(3):451–478, July 2007. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL `http://imajna.oxfordjournals.org/cgi/content/abstract/27/3/451; http://imajna.oxfordjournals.org/cgi/reprint/27/3/451`.

Beuchler:2002:MSI

[Beu02] Sven Beuchler. Multigrid solver for the inner problem in domain decomposition methods for p-FEM. *SIAM Journal on Numerical Analysis*, 40(3):928–944, June 2002. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/39385`.

Beuchler:2005:DDP

[Beu05] S. Beuchler. A domain decomposition preconditioner for p-FEM discretizations of two-dimensional elliptic problems. *Computing*, 74(4):299–317, June 2005. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=74&issue=4&spage=299`.

Bertoluzza:2003:MMA

[BF03] S. Bertoluzza and S. Falletta. The mortar method with approximate constraint. In *Domain decomposition methods in science and engineering*, pages 357–363 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Brand:1996:AHA

[BFF96] R. Brand, W. Freeden, and J. Fröhlich. An adaptive hierarchical approximation method on the sphere using axisymmetric locally supported basis functions. *Computing*, 57(3):187–212, 1996. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Badea:2003:CTC

[BFG+03] Lori Badea, Cristian Făciu, Liliana Gratie, Mihaela Mihăilescu-Suliciu, Dan Poliševski, and Nicolae Simion. *Current topics in continuum mechanics. II.* Editura Academiei Române, Bucharest, 2003. ISBN 973-27-0952-9; 973-27-0918-9. 143 pp. Edited by Lazăr Dragoş.

Babuska:1995:MMG

[BFH+95] Ivo Babuska, Joseph E. Flaherty, William D. Henshaw, John E. Hopcroft, Joseph E. Oliger, and Tayfun Tezduyar, editors. *Modeling, mesh generation, and adaptive numerical methods for partial differential equations*, volume 75 of *The*

IMA Volumes in Mathematics and its Applications. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1995. ISBN 0-387-94542-3.

Borchers:1998:PHH

[BFK+98] W. Borchers, M. Y. Forestier, S. Kräutle, R. Pasquetti, R. Peyret, R. Rautmann, N. Roß, and C. Sabbah. A parallel hybrid highly accurate elliptic solver for viscous flow problems. In *Numerical flow simulation, I (Marseille, 1997)*, volume 66 of *Notes Numer. Fluid Mech.*, pages 3–24. Vieweg & Son, Braunschweig, Germany, 1998.

BacchelliMontefusco:1991:DDM

[BG91] L. Bacchelli Montefusco and C. Guerrini. A domain decomposition method for scattered data approximation on a distributed memory multiprocessor. *Parallel Computing*, 17(2–3):253–263, June 1991. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Bristeau:1997:FDM

[BGG+97] M. O. Bristeau, V. Girault, R. Glowinski, T.-W. Pan, J. Périaux, and Y. Xiang. On a fictitious domain method for flow and wave problems. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 361–386. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Biegler:2007:RTP

[BGH+07] Lorenz T. Biegler, Omar Ghattas, Matthias Heinkenschloss, David Keyes, and Bart van Bloemen Waanders, editors. *Real-time PDE-constrained optimization*. Computational Science & Engineering. SIAM, Philadelphia, PA, USA, 2007. ISBN 0-89871-621-7. xxiv + 312 pp.

Baranger:2002:RDA

[BGOD02] J. Baranger, M. Garbey, and F. Oudin-Dardun. Recent development on Aitken-Schwarz method. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 289–296. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Baranger:2005:GAL

[BGOD05] Jacques Baranger, Marc Garbey, and Fabienne Oudin-Dardun. Generalized Aitken-like acceleration of the Schwarz method. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 505–512. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Babuska:1989:PSS

[BGP89] Ivo Babuška, M. Griebel, and J. Pitkäranta. The problem of selecting the shape functions for a p-type finite element. *International J. Numer. Methods Engineering*, 28: 1891–1908, 1989.

Broeckx:1989:PIC

[BGPW89] F. Broeckx, M. J. Goovaerts, R. Piessens, and L. Wuytack, editors. *Proceedings of the 3rd International Congress on Computational and Applied Mathematics*. Elsevier Science B.V., Amsterdam, The Netherlands, 1989. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). Held at the University of Leuven, Leuven, July 25–30, 1988, J. Comput. Appl. Math. **28** (1989), Special Issue.

Benzoni-Gavage:2008:HPT

[BGS08] Sylvie Benzoni-Gavage and Denis Serre, editors. *Hyperbolic problems: theory, numerics, applications*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008. ISBN 3-540-75711-2.

Bourgat:1988:FVA

[BGT88] Jean-François Bourgat, Roland Glowinski, and Patrick Le Tallec. Formulation variationnelle et algorithme de décomposition de domaines pour les problèmes elliptiques. (French) [Variational formulation and algorithm for the domain decomposition in elliptic problems]. *Comptes Rendus des Séances de l'Académie des Sciences. Série I. Mathématique*, 306 (13):569–572, 1988. CODEN CASMEI. ISSN 0249-6291.

Bamberger:1997:DDM

[BGT97] Alain Bamberger, Roland Glowinski, and Quang Huy Tran. A domain decomposition method for the acoustic wave equation with discontinuous coefficients and grid change. *SIAM Journal on Numerical Analysis*, 34(2):603–639, April 1997. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/26151`.

Bourgat:1989:VFA

[BGTV89] Jean-François Bourgat, Roland Glowinski, Patrick Le Tallec, and Marina Vidrascu. Variational formulation and algorithm for trace operator in domain decomposition calculations. In Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Domain Decomposition Methods*. SIAM, Philadelphia, PA, USA, 1989.

Bjorstad:1988:IMS

[BH88] Petter E. Bjørstad and Anders Hvidsten. Iterative methods for substructured

elasticity problems in structural analysis. In Roland Glowinski, Gene H. Golub, Gérard A. Meurant, and Jacques Périaux, editors, *Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1988.

Ball:2000:I

[BH00a] J. M. Ball and J. C. R. Hunt, editors. *ICIAM 99*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2000. ISBN 0-19-850514-0.

Berlanga:2000:GTD

[BH00b] Ricardo Berlanga and Ismael Herrera. The Gauss theorem for domain decompositions in Sobolev spaces. *Applicable Analysis*, 76(1–2):67–81, 2000. CODEN APANCC. ISSN 0003-6811.

Brenner:2003:LBT

[BH03] Susanne C. Brenner and Qingmi He. Lower bounds for three-dimensional nonoverlapping domain decomposition algorithms. *Numerische Mathematik*, 93(3):445–470, January 2003. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Bell:1973:NPS

[BHHA73] K. Bell, B. Hatlestad, O. E. Hansteen, and Per O. Araldsen. *NORSAM, a programming system for the finite element method. Users manual, Part 1, General description*. NTH, Trondheim, Norway, 1973.

Bialecki:1993:FDD

[Bia93] Bernard Bialecki. A fast domain decomposition Poisson solver on a rectangle for Hermite bicubic orthogonal spline collocation. *SIAM Journal on Numerical Analysis*, 30(2): 425–434, April 1993. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Braverman:2005:HDD

[BIA05] E. Braverman, M. Israeli, and A. Averbuch. A hierarchical 3-D direct Helmholtz solver by domain decomposition and modified Fourier method. *SIAM Journal on Scientific Computing*, 26(5): 1504–1524, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/41703`.

Bertoluzza:2005:FBM

[BIM05] Silvia Bertoluzza, Mourad Ismail, and Bertrand Maury. The fat boundary method: semi-discrete scheme and some numerical experiments. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 513–520. Springer-Verlag, Berlin, Germany / Heidelberg, Ger-

many / London, UK / etc., 2005.

Babin:2001:PDD

[BIP01] V. N. Babin, V. P. Il'in, and A. S. Pylkin. On the parallelization of domain decomposition methods for 3-D boundary value problems. *Lecture Notes in Computer Science*, 2127:385–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2127/21270385.htm; http://link.springer-ny.com/link/service/series/0558/papers/2127/21270385.pdf`.

Badea:2004:DDM

[BIW04] Lori Badea, Ioan R. Ionescu, and Sylvie Wolf. Domain decomposition method for dynamic faulting under slip-dependent friction. *Journal of computational physics*, 201(2):487–510, December 10, 2004. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0021999104002396`.

Bank:2001:NPD

[BJ01] Randolph E. Bank and Peter K. Jimack. A new parallel domain decomposition method for the adaptive finite element solution of elliptic partial differential equations. *Concurrency and Computation: Practice and Experience*, 13(5): 327–350, April 25, 2001. CODEN CCPEBO. ISSN 1532-0626 (print), 1532-0634 (electronic). URL `http://www3.interscience.wiley.com/cgi-bin/abstract/78505738/START; http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=78505738&PLACEBO=IE.pdf`.

Bank:2002:WOD

[BJNN02] Randolph E. Bank, Peter K. Jimack, Sarfraz A. Nadeem, and Sergei V. Nepomnyaschikh. A weakly overlapping domain decomposition preconditioner for the finite element solution of elliptic partial differential equations. *SIAM Journal on Scientific Computing*, 23(6): 1818–1842, November 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/36142`.

Bjorstad:1980:NSB

[Bjø80] Petter E. Bjørstad. *Numerical solution of the biharmonic equation*. PhD thesis, Stanford University, Stanford, CA, 1980.

Bjorstad:1989:MAS

[Bjø89] Petter E. Bjørstad. Multiplicative and additive Schwarz methods: Convergence in the 2 domain case. In Tony Chan,

Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Domain Decomposition Methods*. SIAM, Philadelphia, PA, USA, 1989.

Bespalov:1986:MRO

[BK86] A. N. Bespalov and Yu. A. Kuznetsov. *Metody razbieniya oblasti i fiktivnykh komponent dlya rascheta obemnykh rezonatorov*, volume 134 of Preprint *[Preprint]*. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1986. 32 pp.

Bespalov:1987:RCC

[BK87] A. N. Bespalov and Yu. A. Kuznetsov. RF cavity computations by the domain decomposition and fictitious components methods. *Soviet J. Numer. Anal. Math. Modelling*, 2 (4):259–278, 1987. ISSN 0169-2895. Translated from the Russian.

Brezinski:1992:CAM

[BK92] C. Brezinski and U. Kulisch, editors. *Computational and applied mathematics. I.* North-Holland Publishing Co., Amsterdam, The Netherlands, 1992. ISBN 0-444-89701-1. Algorithms and theory, Selected papers from the IMACS Thirteenth World Congress held in Dublin, July 1991.

Bertoluzza:2000:WSP

[BK00] Silvia Bertoluzza and Angela Kunoth. Wavelet stabilization and preconditioning for domain decomposition. *IMA Journal of Numerical Analysis*, 20(4):533–559, October 2000. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL `http://www3.oup.co.uk/imanum/hdb/Volume_20/Issue_04/200533.sgm.abs.html; http://www3.oup.co.uk/imanum/hdb/Volume_20/Issue_04/pdf/200533.pdf`.

Bresch:2006:OSL

[BK06] Didier Bresch and Jonas Koko. Operator-splitting and Lagrange multiplier domain decomposition methods for numerical simulation of two coupled Navier–Stokes fluids. *Int. J. Appl. Math. Comput. Sci.*, 16(4):419–429, 2006. ISSN 1641-876X.

Bjorstad:2001:DDS

[BKK01] Petter E. Bjørstad, Jacko Koster, and Piotr Krzyżanowski. Domain decomposition solvers for large scale industrial finite element problems. *Lecture Notes in Computer Science*, 1947:373–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/1947/19470373.htm; http://link.springer-ny.com/link/service/series/0558/papers/1947/19470373.pdf`.

Bock:1998:E

[BKR+98] Hans Georg Bock, Guido Kanschat, Rolf Rannacher, Franco Brezzi, Roland Glowinski, Yuri A. Kuznetsov, and Jacques Périaux, editors. *ENUMATH 97*. World Scientific Publishing Co. Inc., River Edge, NJ, USA, 1998. ISBN 981-02-3546-1. Including a selection of papers from the 1st Conference (ENUMATH 95) held in Paris, September 1995 (pp. 607–661).

Bowers:1991:CCI

[BL91] K. L. Bowers and J. Lund, editors. *Computation and control. II*, volume 11 of *Progress in Systems and Control Theory*. Birkhäuser Boston Inc., Cambridge, MA, USA, 1991. ISBN 0-8176-3611-0.

Bjorstad:2000:PSP

[BL00] Petter Bjørstad and Mitchell Luskin, editors. *Parallel solution of partial differential equations*, volume 120 of *The IMA Volumes in Mathematics and its Applications*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000. ISBN 0-387-95008-7. Papers from the IMA Workshop held at the University of Minnesota, Minneapolis, MN, June 9–13, 1997.

Bank:2004:DDS

[BL04] Randolph E. Bank and Shaoying Lu. A domain decomposition solver for a parallel adaptive meshing paradigm. *SIAM Journal on Scientific Computing*, 26(1):105–127 (electronic), January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/42809`.

Black:1992:PCU

[Bla92] Kelly Black. Polynomial collocation using a domain decomposition solution to parabolic PDEs via the penalty method and explicit/implicit time marching. *Journal of Scientific Computing*, 7(4):313–338, 1992. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic).

Blackburn:2000:DDR

[Bla00] Hugh M. Blackburn. Domain decomposition with Robin boundary conditions across a phase interface. In *Proceedings of the 1999 International Conference on Computational Techniques and Applications (Canberra)*, volume 42(C) of *The ANZIAM Journal*, pages C263–C290. Cambridge University Press, Cambridge, UK, 2000. CODEN AJNOA2. ISSN 1446-1811 (print), 1446-8735 (electronic).

Blaheta:2004:SDP

[Bla04] Radim Blaheta. Space decomposition preconditioners and parallel solvers. In *Numerical mathematics and ad-*

vanced applications, pages 20–38. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2004.

Blakely:2007:HMS

[Bla07] Christopher D. Blakely. A hybrid meshless/spectral-element method for the shallow water equations on the sphere. In *Advances in meshfree techniques*, volume 5 of *Comput. Methods Appl. Sci.*, pages 199–219. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2007.

Beatson:2000:FSR

[BLB00] R. K. Beatson, W. A. Light, and S. Billings. Fast solution of the radial basis function interpolation equations: Domain decomposition methods. *SIAM Journal on Scientific Computing*, 22(5):1717–1740 (electronic), September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/36177`.

Bramble:1991:ISN

[BLP91] James H. Bramble, Zbigniew Leyk, and Joseph E. Pasciak. Iterative schemes for non-symmetric and indefinite elliptic boundary value problems. Technical report, Cornell University, 1991.

Brezzi:2003:CMM

[BLP03] F. Brezzi, J.-L. Lions, and O. Pironneau. The Chimera method for a model problem. In *Numerical mathematics and advanced applications*, pages 817–825. Springer Italia, Milan, 2003.

Bernardi:1989:ARS

[BM89] Christine Bernardi and Yvon Maday. Approximation results for spectral methods with domain decomposition. *Applied Numerical Mathematics: Transactions of IMACS*, 6(1–2):33–52, December 1989. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). Spectral multi-domain methods (Paris, 1988).

Bernardi:1990:RPT

[BM90] Christine Bernardi and Yvon Maday. Relèvement polynomial de traces et applications. (French) [Polynomial raising of traces and applications]. M^2AN, 24(5):557–611, 1990.

Bjorstad:1991:SSO

[BM91] Petter E. Bjørstad and Jan Mandel. On the spectra of sums of orthogonal projections with applications to parallel computing. *BIT (Nordisk tidskrift for informationsbehandling)*, 31(1):76–88, 1991. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Belgacem:1993:NCS

[BM93a] F. Ben Belgacem and Y. Maday. Non-conforming spectral method for second order elliptic problems in 3D. *East-West Journal of Numerical Mathematics*, 1(4):235–251, 1993. CODEN EJNMEA. ISSN 0928-0200.

Brezzi:1993:MHE

[BM93b] F. Brezzi and L. D. Marini. Macro hybrid elements and domain decomposition methods. In *Optimisation et contrôle (Sophia-Antipolis, 1992)*, pages 89–96. Cépaduès, Toulouse, France, 1993.

Bernardi:2001:SED

[BM01] C. Bernardi and Y. Maday. Spectral element discretizations of the Poisson equation with mixed boundary conditions. *Appl. Math. Inform.*, 6 (1):1–29, 90, 2001. ISSN 1512-0074.

Borgers:2010:AMM

[BM10] Christoph Börgers and Scott MacLachlan. An angular multigrid method for computing mono-energetic particle beams in Flatland. *Journal of computational physics*, 229(8):2914–2931, April 20, 2010. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0021999109007025`.

Bjoerstad:1996:PRS

[BMOV96] P. Bjoerstad, R. Moe, R. Olufsen, and E. Vainikko. Parallel reservoir simulation based on domain decomposition techniques. *Lecture Notes in Computer Science*, 1067:3–??, 1996. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Bonilla:2008:PIM

[BMPV08] Luis L. Bonilla, Miguel Moscoso, Gloria Platero, and José M. Vega, editors. *Progress in industrial mathematics at ECMI 2006*, volume 12 of *Mathematics in Industry*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008. ISBN 3-540-71991-1. European Consortium for Mathematics in Industry (Berlin).

Bjorstad:1990:PDD

[BMS90] Petter E. Bjørstad, Randi Moe, and Morten Skogen. Parallel domain decomposition and iterative refinement algorithms. In Wolfgang Hackbusch, editor, *Parallel Algorithms for PDEs, Proceedings of the 6th GAMM-Seminar held in Kiel, Germany, January 19–21, 1990*. Vieweg-Verlag, Braunschweig and Wiesbaden, Germany, 1990.

Bjorstad:1991:PDD

[BMS91] Petter E. Bjørstad, Randi Moe, and Morten Skogen.

Parallel domain decomposition and iterative refinement algorithms. In *Parallel algorithms for partial differential equations (Kiel, 1990)*, volume 31 of *Notes Numer. Fluid Mech.*, pages 28–46. Vieweg & Son, Braunschweig, Germany, 1991.

Bubak:1994:FLG

[BMS94a] M. Bubak, J. Moscinski, and R. Slota. FHP lattice gas on networked workstations. In Gruber and Tomassini [GT94], pages 427–430. ISBN 2-88270-011-3. LCCN QC20.7.E4I58 1994.

Bubak:1994:IPL

[BMS94b] M. Bubak, J. Moscinski, and R. Slota. Implementation of parallel lattice gas program on workstations under PVM. In Dongarra and Wasniewski [DW94b], pages 136–146. ISBN 3-540-58712-8 (Berlin), 0-387-58712-8 (New York). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.58 .P35 1994. DM104.00.

Beuchler:2007:OAS

[BN07] S. Beuchler and S. V. Nepomnyaschikh. Overlapping additive Schwarz preconditioners for isotropic elliptic problems with degenerate coefficients. *J. Numer. Math.*, 15(4):245–276, 2007. ISSN 1570-2820.

Borne:2007:JDD

[BO07] Sabine Le Borne and Suely Oliveira. Joint domain-decomposition $H - LU$ preconditioners for saddle point problems. *Electronic Transactions on Numerical Analysis*, 26:285–298, 2007. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL `http://etna.mcs.kent.edu/vol.26.2007/pp285-298.dir/pp285-298.pdf`.

Boglaev:1999:FDD

[Bog99] Igor Boglaev. Finite difference domain decomposition for a singularly perturbed parabolic problem. In *Recent advances in numerical methods and applications, II (Sofia, 1998)*, pages 512–520. World Sci. Publ., River Edge, NJ, 1999.

Boglaev:2000:DDB

[Bog00] Igor Boglaev. Domain decomposition in boundary layers for singularly perturbed problems. *Applied Numerical Mathematics: Transactions of IMACS*, 34(2–3):145–166, July 2000. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.nl/gej-ng/29/17/21/62/29/28/abstract.html`; `http://www.elsevier.nl/gej-ng/29/17/21/62/29/28/article.pdf`.

Boglaev:2002:UDD

[Bog02a] I. Boglaev. Uniform domain decomposition for a convection-diffusion problem. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 313–319. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Boglaev:2002:SSP

[Bog02b] Igor P. Boglaev. The solution of a singularly perturbed convection–diffusion problem by an iterative domain decomposition method. *Numerical Algorithms*, 31(1–4):27–46, December 2002. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://ipsapp007.kluweronline.com/content/getfile/5058/43/9/abstract.htm; http://ipsapp007.kluweronline.com/content/getfile/5058/43/9/fulltext.pdf`.

Boglaev:2004:MIA

[Bog04] Igor Boglaev. Monotone iterative algorithms for a nonlinear singularly perturbed parabolic problem. *Journal of Computational and Applied Mathematics*, 172(2):313–335, 2004. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic).

Boglaev:2006:MAS

[Bog06a] I. Boglaev. Monotone algorithms for solving nonlinear monotone difference schemes of parabolic type in the canonical form. *J. Numer. Math.*, 14 (4):247–266, 2006. ISSN 1570-2820.

Boglaev:2006:MDD

[Bog06b] I. Boglaev. A monotone domain decomposition algorithm for nonlinear parabolic difference schemes in the canonical form. *The ANZIAM Journal*, 48((C)):C397–C412 (2008), 2006. CODEN AJNOA2. ISSN 1446-1811 (print), 1446-8735 (electronic).

Boglaev:2006:MIS

[Bog06c] I. Boglaev. Monotone iterates for solving nonlinear monotone difference schemes. *Computing*, 78(1): 17–30, August 2006. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=78&issue=1&spage=17`.

Boglaev:2007:MIS

[Bog07] I. Boglaev. Monotone iterates for solving systems of semilinear elliptic equations and applications. *The ANZIAM Journal*, 49((C)):C591–C608, 2007. CODEN AJNOA2. ISSN 1446-1811 (print), 1446-8735 (electronic).

Boglaev:2008:SSE

[Bog08] Igor Boglaev. The solution of a semilinear evolutionary convection–diffusion problem by a monotone domain decomposition algorithm. *Applied Mathematics and Computation*, 197(2):536–547, April 1, 2008. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Bollhofer:1996:ADD

[Bol96] Matthias Bollhöfer. Algebraic domain decomposition. In *Algebraic multilevel iteration methods with applications, Vol. I, II (Nijmegen, 1996)*, pages 91–104. Katholieke Univ. Nijmegen, Dept. Math., Nijmegen, 1996.

Boergers:1989:NDD

[Bör89a] Christoph Börgers. The Neumann–Dirichlet domain decomposition method with inexact solvers on the subdomains. *Numerische Mathematik*, 55:123–136, 1989.

Borgers:1989:NDD

[Bör89b] Christoph Börgers. The Neumann–Dirichlet domain decomposition method with inexact solvers on the subdomains. *Numerische Mathematik*, 55(2):123–136, May 1989. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Borne:2005:HMC

[Bor05] Sabine Le Borne. Hierarchical matrices for convection-dominated problems. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 631–638. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Bourquin:1990:ACS

[Bou90] Frédéric Bourquin. Analysis and comparison of several component mode synthesis methods on one-dimensional domains. *Numerische Mathematik*, 58(1):11–33, 1990. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Bounaim:2002:UIS

[Bou02] A. Bounaïm. On the use of iterative Schwarz algorithms in the solution of an optimal control problem. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 329–336. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Boyd:2005:ACG

[Boy05] John P. Boyd. Algorithm 840: Computation of grid points, quadrature weights and derivatives for spectral element methods using prolate

spheroidal wave functions—prolate elements. *ACM Transactions on Mathematical Software*, 31(1):149–165, March 2005. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Bramble:1987:PTI

[BP87] James H. Bramble and Joseph E. Pasciak. A preconditioning technique for indefinite systems resulting from mixed approximations of elliptic problems. Technical report, Cornell University, 1987.

Bramble:1990:DDT

[BP90] James H. Bramble and Joseph E. Pasciak. A domain decomposition technique for Stokes problems. *Applied Numerical Mathematics: Transactions of IMACS*, 6(4):251–261, May 1990. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Bramble:1991:NEM

[BP91] James H. Bramble and Joseph E. Pasciak. New estimates for multilevel algorithms including the V-cycle. Technical report, Cornell University, August 1991.

Bertoluzza:2004:PMM

[BP04] S. Bertoluzza and M. Pennacchio. Preconditioning the mortar method by substructuring: the high order case. *ANACM. Applied Numerical Analysis and Computational Mathematics*, 1(3):434–454, 2004. ISSN 1611-8170.

Boglaev:2006:IDD

[BP06] I. Boglaev and S. Pack. An iterative domain decomposition algorithm for a nonlinear convection-diffusion problem. *The ANZIAM Journal*, 48((C)):C494–C508 (2008), 2006. CODEN AJNOA2. ISSN 1446-1811 (print), 1446-8735 (electronic).

Boglaev:2007:BMD

[BP07] I. Boglaev and S. Pack. Block monotone domain decomposition methods for a quasilinear anisotropic convection-diffusion equation. *The ANZIAM Journal*, 49((C)): C493–C512, 2007. CODEN AJNOA2. ISSN 1446-1811 (print), 1446-8735 (electronic).

Barka:2008:ISB

[BP08] André Barka and Clément Picard. Implementation of spectral basis functions in BEM/FEM/GSM Domain Decomposition Methods devoted to scattering and radiation applications. *Computer Physics Communications*, 178(6):438–448, March 15, 2008. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465507004602`.

Baker:2000:NAV

[BPMB00] Christopher Baker, John Pryce, Giovanni Monegato, and Guido Vanden Berghe, editors. *Numerical analysis 2000. Vol. VI. Ordinary differential equations and integral equations*. Elsevier Science B.V., Amsterdam, The Netherlands, 2000. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). v–xviii and 1–540 pp. J. Comput. Appl. Math. **125** (2000), no. 1-2.

Bey:1995:VDG

[BPO95] Kim S. Bey, Abani Patra, and J. Tinsley Oden. *hp*-version discontinuous Galerkin methods for hyperbolic conservation laws: a parallel adaptive strategy. *International Journal for Numerical Methods in Engineering*, 38(22): 3889–3908, 1995. CODEN IJNMBH. ISSN 0029-5981.

Brebbia:2007:BEO

[BPP07] C. A. Brebbia, D. Poljak, and V. Popov, editors. *Boundary elements and other mesh reduction methods XXIX*, volume 44 of *WIT Transactions on Modelling and Simulation*. WIT Press, Southampton, UK, 2007. ISBN 1-84564-076-4. Papers from the International Conference held in Southampton, June 4–6, 2007.

Bramble:1986:CPE

[BPS86a] James H. Bramble, Joseph E. Pasciak, and Alfred H. Schatz. The construction of preconditioners for elliptic problems by substructuring. I. *Mathematics of Computation*, 47(175): 103–134, July 1986. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bramble:1986:IME

[BPS86b] James H. Bramble, Joseph E. Pasciak, and Alfred H. Schatz. An iterative method for elliptic problems on regions partitioned into substructures. *Mathematics of Computation*, 46(174):361–369, April 1986. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bramble:1987:CPE

[BPS87] James H. Bramble, Joseph E. Pasciak, and Alfred H. Schatz. The construction of preconditioners for elliptic problems by substructuring, II. *Mathematics of Computation*, 49(179):1–16, July 1987. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bramble:1988:CPE

[BPS88] James H. Bramble, Joseph E. Pasciak, and Alfred H. Schatz. The construction of preconditioners for elliptic problems by substructuring. III. *Mathematics of Computation*, 51 (184):415–430, October 1988. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bramble:1989:CPE

[BPS89] James H. Bramble, Joseph E. Pasciak, and Alfred H. Schatz. The construction of preconditioners for elliptic problems by substructuring. IV. *Mathematics of Computation*, 53(187):1–24, July 1989. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bru:2004:OAM

[BPS04] Rafael Bru, Francisco Pedroche, and Daniel B. Szyld. Overlapping additive and multiplicative Schwarz iterations for H-matrices. *Linear Algebra and its Applications*, 393: 91–105, 2004. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Bramble:1998:ANO

[BPV98] James H. Bramble, Joseph E. Pasciak, and Apostol T. Vassilev. Analysis of non-overlapping domain decomposition algorithms with inexact solves. *Mathematics of Computation*, 67(221):1–19, January 1998. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/jourcgi/jour-pbprocess?fn=110&arg1=S0025-5718-98-00879-5&u=/mcom/1998-67-221/`.

Bramble:1991:CEM

[BPWX91a] James H. Bramble, Joseph E. Pasciak, Jun Ping Wang, and Jinchao Xu. Convergence estimates for multigrid algorithms without regularity assumptions. *Mathematics of Computation*, 57(195):23–45, July 1991. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bramble:1991:CEP

[BPWX91b] James H. Bramble, Joseph E. Pasciak, Jun Ping Wang, and Jinchao Xu. Convergence estimates for product iterative methods with applications to domain decomposition. *Mathematics of Computation*, 57 (195):1–21, July 1991. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bramble:1990:PMP

[BPX90] James H. Bramble, Joseph E. Pasciak, and Jin Chao Xu. Parallel multilevel preconditioners. *Mathematics of Computation*, 55(191):1–22, July 1990. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Badia:2009:CBN

[BQQ09] Santiago Badia, Annalisa Quaini, and Alfio Quarteroni. Coupling Biot and Navier–Stokes equations for modelling fluid-poroelastic media interaction. *Journal of computational physics*, 228(21):7986–8014, 2009. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Bramble:1966:SOF

[Bra66] James H. Bramble. A second order finite difference analogue of the first biharmonic boundary value problem. *Numerische Mathematik*, 9:236–249, 1966.

Brezzi:1985:NMF

[Bre85] F. Brezzi, editor. *Numerical methods in fluid dynamics*, volume 1127 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1985. ISBN 3-540-15225-3. Lectures given at the third 1983 session of the Centro Internationale Matematico Estivo (CIME) held in Como, July 7–15, 1983.

Brezzi:1988:SMF

[Bre88] F. Brezzi. A survey of mixed finite element methods. In *Finite elements (Hampton, VA, 1986)*, ICASE/NASA LaRC Ser., pages 34–49. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1988.

Brezinski:1989:NAM

[Bre89] C. Brezinski, editor. *Numerical and applied mathematics. Part II*, volume 1 of *IMACS Annals on Computing and Applied Mathematics*. J. C. Baltzer A.G., Basel, Switzerland, 1989. ISBN 3-905135-60-4. Papers from the Twelfth IMACS World Congress on Scientific Computation held in Paris, July 18–22, 1988, IMACS Transactions on Scientific Computing '88.

Brenner:1995:TLA

[Bre95] Susanne C. Brenner. A two-level additive Schwarz preconditioner for macro-element approximations of the plate bending problem. *Houston J. Math.*, 21(4):823–844, 1995. CODEN HJMADZ. ISSN 0362-1588.

Brenner:1999:CNS

[Bre99] Susanne C. Brenner. The condition number of the Schur complement in domain decomposition. *Numerische Mathematik*, 83(2):187–203, August 1999. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer-ny.com/link/service/journals/00211/bibs/9083002/90830187.htm; http://link.springer-ny.com/link/service/journals/00211/papers/9083002/90830187.pdf`.

Bruch:1991:MDD

[Bru91] J. C. Bruch, Jr. Multisplitting and domain decomposition techniques applied to free surface flow through porous media. In *Computational modelling of free and moving boundary problems, Vol. 1 (Southampton, 1991)*, pages 3–20. Comput. Mech., Southampton, UK, 1991.

Bruaset:1995:SPI

[Bru95] Are Magnus Bruaset. *A survey of preconditioned iterative methods*, volume 328 of *Pitman Research Notes in Mathematics Series*. Longman Scientific and Technical, Harlow, Essex, UK, 1995. ISBN 0-582-27654-3. xii + 162 pp.

Bernardi:2009:PEA

[BRVC09] C. Bernardi, T. Chacón Rebollo, E. Chacón Vera, and D. Franco Coronil. A posteriori error analysis for two non-overlapping domain decomposition techniques. *Applied Numerical Mathematics: Transactions of IMACS*, 59 (6):1214–1236, June 2009. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Birkhoff:1984:EPS

[BS84a] Garrett Birkhoff and Arthur Schoenstadt, editors. *Elliptic problem solvers. II*. Academic Press, New York, NY, USA, 1984. ISBN 0-12-100560-7.

Bohmer:1984:DCM

[BS84b] K. Böhmer and H. J. Stetter, editors. *Defect correction methods*, volume 5 of *Computing Supplementum*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1984. ISBN 3-211-81832-4. Theory and applications, Papers from the conference on error asymptotics and defect corrections held at Oberwolfach, July 1983.

Bramley:1990:DDP

[BS90] Randall Barry Bramley and Ahmed Sameh. Domain decomposition for parallel row projection algorithms. Technical Report CSRD 958, University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, January 1990. 13 pp.

Bramley:1991:DDP

[BS91] R. Bramley and A. Sameh. Domain decomposition for parallel row projection algorithms. *Applied Numerical Mathematics: Transactions of IMACS*, 8(4–5):303–315, November 1991. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Bjorstad:1992:DDA

[BS92a] Petter E. Bjørstad and Morten Skogen. Domain decomposition algorithms of Schwarz type, designed for massively parallel computers. In Tony F. Chan, David E. Keyes, Gérard A. Meurant, Jeffrey S. Scroggs, and Robert G. Voigt, editors, *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1992.

Boglaev:1992:DDT

[BS92b] I. P. Boglaev and V. V. Sirotkin. Domain decomposition technique for singularly perturbed problems and its parallel implementation. In *Computational and applied mathematics, II (Dublin, 1991)*, pages 259–268. North-Holland Publishing Co., Amsterdam, The Netherlands, 1992.

Boglaev:1993:ADD

[BS93a] I. P. Boglaev and V. V. Sirotkin. Application of domain decomposition to semiconductor device modelling and simulation in diagnostics of semiconductor structures. In *Applications of advanced computational methods for boundary and interior layers*, volume 2 of *Adv. Comput. Methods Bound. Inter. Layers*, pages 1–32. Boole, Dublin, Ireland, 1993.

Boglaev:1993:CMS

[BS93b] I. P. Boglaev and V. V. Sirotkin. Computational method for a singular perturbation problem via domain decomposition and its parallel implementation. *Applied Mathematics and Computation*, 56(1):71–95, June 1993. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Brenner:2000:LBN

[BS00] Susanne C. Brenner and Li-Yeng Sung. Lower bounds for nonoverlapping domain decomposition preconditioners in two dimensions. *Mathematics of Computation*, 69(232): 1319–1339, October 2000. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/journal-getitem?pii=S0025-5718-00-01236-9; http://www.ams.org/mcom/2000-69-232/S0025-5718-00-01236-9/S0025-5718-00-01236-9.dvi; http://www.ams.org/mcom/2000-69-232/S0025-5718-00-01236-9/S0025-5718-00-01236-9.pdf; http://www.ams.org/mcom/2000-69-232/S0025-5718-00-01236-9/S0025-5718-00-01236-9.ps; http://www.ams.org/mcom/2000-69-232/S0025-5718-00-01236-9/S0025-5718-00-01236-9.tex`.

Borges:2008:NSV

[BS08] Luís Borges and Adélia Sequeira. Numerical simulation of a viscoelastic fluid with a preconditioned Schwarz method. In *Parabolic and Navier–Stokes equations. Part 1*, volume 81 of *Banach Center Publ.*, pages 65–80. Polish Acad. Sci. Inst. Math., Warsaw, 2008.

Bayada:2004:NND

[BSS04] G. Bayada, J. Sabil, and T. Sassi. A Neumann–Neumann domain decomposition algorithm for the Sig-

norini problem. *Applied Mathematics Letters*, 17(10): 1153–1159, 2004. CODEN AMLEEL. ISSN 0893-9659 (print), 1873-5452 (electronic).

Bruaset:2006:NSP

[BT06] Are Magnus Bruaset and Aslak Tveito, editors. *Numerical solution of partial differential equations on parallel computers*, volume 51 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006. ISBN 3-540-29076-1. xii + 482 pp.

Buffa:2002:EES

[Buf02] Annalisa Buffa. Error estimate for a stabilised domain decomposition method with nonmatching grids. *Numerische Mathematik*, 90(4): 617–640, February 2002. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.de/link/service/journals/00211/bibs/2090004/20900617.htm; http://link.springer.de/link/service/journals/00211/papers/2090004/20900617.pdf`.

Buffa:2006:CDT

[Buf06] Annalisa Buffa. Compatible discretizations in two dimensions. In *Numerical mathematics and advanced applications*, pages 3–20. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006.

Buleev:1988:MMD

[Bul88] S. N. Buleev. A modification of the method of domain decomposition. In *Conjugate equations and perturbation algorithms (Russian)*, pages 28–37. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1988.

Buleev:1990:PRA

[Bul90] S. N. Buleev. *Programmnaya realizatsiya algoritmov razdeleniya oblasti*, volume 244 of Preprint *[Preprint]*. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, Russia, 1990. 24 pp.

Bensoussan:1992:FTC

[BV92] A. Bensoussan and J.-P. Verjus, editors. *Future tendencies in computer science, control and applied mathematics*, volume 653 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1992. ISBN 3-540-56320-2.

Brakkee:1997:DDI

[BVW97] E. Brakkee, C. Vuik, and P. Wesseling. Domain decomposition for the incompressible Navier–Stokes equations: solving subdomain problems accurately and inaccurately. In *Domain decomposition methods*

in sciences and engineering (Beijing, 1995), pages 443–451. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Bjorstad:1984:SEP

[BW84] Petter E. Bjørstad and Olof B. Widlund. Solving elliptic problems on regions partitioned into substructures. In Garrett Birkhoff and Arthur Schoenstadt, editors, *Elliptic Problem Solvers II*, pages 245–256. Academic Press, New York, NY, USA, 1984.

Bjorstad:1986:IMS

[BW86] Petter E. Bjørstad and Olof B. Widlund. Iterative methods for the solution of elliptic problems on regions partitioned into substructures. *SIAM Journal on Numerical Analysis*, 23(6):1097–1120, December 1986. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Bjorstad:1989:OON

[BW89a] Petter E. Bjørstad and Olof B. Widlund. To overlap or not to overlap: A note on a domain decomposition method for elliptic problems. *SIAM Journal on Scientific and Statistical Computing*, 10(5):1053–1061, 1989.

Borgers:1989:DDL

[BW89b] Christoph Börgers and Olof B. Widlund. A domain decomposition Laplace solver for internal combustion engine modeling. *SIAM Journal on Scientific and Statistical Computing*, 10(2):211–226, March 1989. CODEN SIJCD4. ISSN 0196-5204.

Boergers:1989:DDL

[BW89c] Christoph Börgers and Olof B. Widlund. A domain decomposition Laplace solver for internal combustion modeling. *SIAM Journal on Scientific and Statistical Computing*, 10 (4):211–226, 1989.

Borgers:1990:FED

[BW90] Christoph Börgers and Olof B. Widlund. On finite element domain imbedding methods. *SIAM Journal on Numerical Analysis*, 27(4):963–978, August 1990. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Beckie:1992:MAD

[BWA92] R. Beckie, E. F. Wood, and A. A. Aldama. A multigrid acceleration for domain decomposition mixed finite element simulation of groundwater flow. In *Computational methods in water resources, IX, Vol. 1 (Denver, CO, 1992)*, pages 589–596. Comput. Mech., Southampton, UK, 1992.

Bramble:1991:SEW

[BX91] James H. Bramble and Jinchao Xu. Some estimates for a weighted L^2 projection.

Mathematics of Computation, 56(194):463–476, April 1991. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bornemann:1992:BNE

[BY92] Folkmar Bornemann and Harry Yserentant. A basic norm equivalence for the theory of multilevel methods. Technical report, Zuse-Zentrum, Berlin, 1992. Submitted to Numer. Math.

Brenner:1999:BDD

[ByS99] Susanne C. Brenner and Li yeng Sung. Balancing domain decomposition for nonconforming plate elements. *Numerische Mathematik*, 83(1):25–52, July 1999. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer-ny.com/link/service/journals/00211/bibs/9083001/90830025.htm; http://link.springer-ny.com/link/service/journals/00211/papers/9083001/90830025.pdf`.

Baronio:1996:DDT

[BZ96] A. Baronio and F. Zama. A domain decomposition technique for spline image restoration on distributed memory systems. *Parallel Computing*, 22(1):101–110, February 20, 1996. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/parco/cas_sub/browse/browse.cgi?year=1996&volume=22&issue=1&aid=1046`.

Burman:2006:DDM

[BZ06] Erik Burman and Paolo Zunino. A domain decomposition method based on weighted interior penalties for advection-diffusion-reaction problems. *SIAM Journal on Numerical Analysis*, 44(4):1612–1638 (electronic), January 2006. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Chow:2002:SST

[CA02] P. Chow and C. Addison. A software strategy towards putting domain decomposition at the centre of a mesh-based simulation process. *Lecture Notes in Computer Science*, 2331:755–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2331/23310755.htm; http://link.springer-ny.com/link/service/series/0558/papers/2331/23310755.pdf`.

Cai:1989:SDD

[Cai89] Xiao-Chuan Cai. *Some Domain Decomposition Algorithms for Nonselfadjoint*

Elliptic and Parabolic Partial Differential Equations. PhD thesis, Courant Institute of Mathematical Sciences, September 1989. Tech. Rep. 461, Department of Computer Science, Courant Institute.

Cai:1990:ASA

[Cai90] Xiao-Chuan Cai. An additive Schwarz algorithm for nonselfadjoint elliptic equations. In Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Third International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1990.

Cai:1991:ASA

[Cai91] Xiao-Chuan Cai. Additive Schwarz algorithms for parabolic convection-diffusion equations. *Numerische Mathematik*, 60(1):41–61, 1991.

Cai:1993:OTL

[Cai93a] Xiao-Chuan Cai. An optimal two-level overlapping domain decomposition method for elliptic problems in two and three dimensions. *SIAM Journal on Scientific and Statistical Computing*, 14:239–247, January 1993.

Cai:1993:NEP

[Cai93b] Zhi Qiang Cai. Norm estimates of product operators with application to domain decomposition. *Applied Mathematics and Computation*, 53 (2–3):251–276, February 1993. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Cai:1995:UPI

[Cai95] Xiao-Chuan Cai. The use of pointwise interpolation in domain decomposition methods with nonnested meshes. *SIAM Journal on Scientific Computing*, 16(1):250–256, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cela:1996:PPL

[CAL96] J. M. Cela, J. M. Alfonso, and J. Labarta. PLS: A parallel linear solvers library for domain decomposition methods. *Lecture Notes in Computer Science*, 1156:319–??, 1996. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Cao:1992:FAP

[Cao92] Zhi Hao Cao. Fourier analysis of preconditioners for domain decomposition. *Numer. Math. J. Chinese Univ.*, 14(3):253–258, 1992. ISSN 1000-081X.

Carstensen:1997:DDN

[Car97] Carsten Carstensen. Domain decomposition for a nonsmooth convex minimization problem and its application to plasticity. *Numerical Linear Algebra with Applications*, 4 (3):177–190, May/June 1997.

CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic). URL `http://www3.interscience.wiley.com/cgi-bin/abstract?ID=15027`; `http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=15027&PLACEBO=IE.pdf`.

Chapple:1995:PUL

[CC95] S. R. Chapple and L. J. Clarke. The Parallel Utilities Library. In IEEE [IEE95], pages 21–30. ISBN 0-8186-6895-4. LCCN QA76.58 .S34 1994.

Cermele:1997:NUD

[CC97] M. Cermele and M. Colajanni. Non-uniform and dynamic domain decompositions for hypercomputing. *Parallel Computing*, 23(6):699–720, June 20, 1997. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/parco/cas_sub/browse/browse.cgi?year=1997&volume=23&issue=6&aid=1179`.

Carasso:1991:MAS

[CCCP91] C. Carasso, C. Conca, R. Correa, and J.-P. Puel, editors. *Mathématiques appliquées aux sciences de l'ingénieur. (French) [Applied mathematics in engineering science]*. Cépaduès Éditions, Toulouse, France, 1991. ISBN 2-85428-290-6. Papers from the Second French-Chilean Symposium on Applied Mathematics held in Santiago, December 4–8, 1989.

Chien:1999:CDD

[CCJ99] C.-S. Chien, H.-S. Chou, and B.-W. Jeng. A continuation–domain decomposition algorithm for bifurcation problems. *Numerical Algorithms*, 22(3–4):367–383, December 1999. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://ipsapp007.kluweronline.com/content/getfile/5058/23/1/abstract.htm`; `http://ipsapp007.kluweronline.com/content/getfile/5058/23/1/fulltext.pdf`.

Caloz:2008:CCN

[CD08] Gabriel Caloz and Monique Dauge, editors. *CANUM 2006—Congrès National d'Analyse Numérique*, volume 22 of *ESAIM Proceedings*. EDP Sciences, Les Ulis, 2008. Papers from the congress held in Guidel, May 29–June 2, 2006.

Cowsar:1992:DPT

[CDG+92] L. C. Cowsar, E. J. Dean, R. Glowinski, P. Le Tallec, C. H. Li, J. Périaux, and M. F. Wheeler. Decomposition principles and their applications in scientific computing. In *Parallel processing for scientific computing (Houston, TX, 1991)*, pages 213–237. SIAM, Philadelphia, PA, USA, 1992.

Carvalho:1995:LAK

[CDG95] L. Carvalho, I. S. Duff, and L. Giraud. Linear algebra kernels for parallel domain decomposition methods. Report TR/PA/95/26, CERFACS, Toulouse, France, 1995. ???? pp.

Carvalho:1996:LAK

[CDG96] L. Carvalho, I. S. Duff, and L. Giraud. Linear algebra kernels for parallel domain decomposition methods. In Papadrakakis and Bugeda [PB96], pages 1–17. ISBN 84-87867-75-8. LCCN ????

Crouseilles:2004:HKF

[CDL04] N. Crouseilles, P. Degond, and M. Lemou. A hybrid kinetic/fluid model for solving the gas dynamics Boltzmann-BGK equation. *Journal of computational physics*, 199(2): 776–808, 2004. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Cai:2002:RRA

[CDS02] X.-C. Cai, M. Dryja, and M. Sarkis. RASHO: a restricted additive Schwarz preconditioner with harmonic overlap. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 337–344. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Cai:2004:RAS

[CDS04] Xiao-Chuan Cai, Maksymilian Dryja, and Marcus Sarkis. A restricted additive Schwarz preconditioner with harmonic overlap for symmetric positive definite linear systems. *Cubo*, 6(4):73–95, 2004. ISSN 0716-7776.

Chen:1997:DDM

[CE97] Zhangxin Chen and Richard E. Ewing. Domain decomposition methods and multilevel preconditioners for nonconforming and mixed methods for partial differential problems. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 213–220. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Chen:1996:DDA

[CEL96] Zhangxin Chen, Richard E. Ewing, and Raytcho Lazarov. Domain decomposition algorithms for mixed methods for second-order elliptic problems. *Mathematics of Computation*, 65(214):467–490, April 1996. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/jourcgi/jour-pbprocess?fn=110&arg1=S0025-5718-96-00703-X&u=/mcom/1996-65-214/`.

Chan:1991:DDI

[CES91] Tony F. Chan, Wei Nan E, and

Jia Chang Sun. Domain decomposition interface preconditioners for fourth-order elliptic problems. *Applied Numerical Mathematics: Transactions of IMACS*, 8(4–5):317–331, November 1991. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Chen:2000:NTM

[CES00] Zhangxin Chen, Richard E. Ewing, and Zhong-Ci Shi, editors. *Numerical treatment of multiphase flows in porous media*, volume 552 of *Lecture Notes in Physics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000. ISBN 3-540-67566-3.

Canuto:1988:SAS

[CF88] C. Canuto and D. Funaro. The Schwarz algorithm for spectral methods. *SIAM Journal on Numerical Analysis*, 25(1):24–40, February 1988. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Cummings:1999:DDM

[CF99] Peter Cummings and Xiaobing Feng. Domain decomposition methods for a system of coupled acoustic and elastic Helmholtz equations. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 206–213 (electronic). DDM.org, Augsburg, 1999.

Camilli:1994:DDM

[CFLS94] F. Camilli, M. Falcone, P. Lanucara, and A. Seghini. A domain decomposition method for Bellman equations. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 477–483. AMS, Providence, RI, USA, 1994.

Cai:1997:SMU

[CFS97] Xiao-Chuan Cai, Charbel Farhat, and Marcus Sarkis. Schwarz methods for the unsteady compressible Navier–Stokes equations on unstructured meshes. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 453–460. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Chan:1988:SSO

[CG88] Tony F. Chan and Danny Goovaerts. Schwarz = Schur: Overlapping versus nonoverlapping domain decomposition. Technical Report CAM 88-21, Department of Mathematics, UCLA, 1988.

Chan:1989:SCD

[CG89] Tony F. Chan and Danny Goovaerts. Schur complement domain decomposition algorithms for spectral methods. *Applied Numerical Mathematics: Transactions of IMACS*,

6(1–2):53–64, December 1989. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). Spectral multi-domain methods (Paris, 1988).

Chan:1992:RBO

[CG92] Tony F. Chan and Danny Goovaerts. On the relationship between overlapping and nonoverlapping domain decomposition methods. *SIAM Journal on Matrix Analysis and Applications*, 13(2):663–670, April 1992. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Coomer:1994:DDM

[CG94] R. K. Coomer and I. G. Graham. Domain decomposition methods for device modelling. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 491–496. AMS, Providence, RI, USA, 1994.

Casal:1993:ICM

[CGCH93] A. Casal, L. Gavete, C. Conde, and J. Herranz, editors. *III Congreso de Matemática Aplicada/XIII C.E.D.Y.A. (Congreso de Ecuaciones Diferenciales y Aplicaciones)*. Universidad Politécnica de Madrid, Madrid, Spain, 1993. ISBN 84-605-3273-9.

Cai:1990:CRE

[CGK90] Xiao-Chuan Cai, William D. Gropp, and David E. Keyes. Convergence rate estimate for a domain decomposition method. Technical report, Yale University, 1990. Submitted to Numer. Math.

Cai:1992:CSD

[CGK92a] Xiao-Chuan Cai, William D. Gropp, and David E. Keyes. A comparison of some domain decomposition algorithms for nonsymmetric elliptic problems. In Tony F. Chan, David E. Keyes, Gérard A. Meurant, Jeffrey S. Scroggs, and Robert G. Voigt, editors, *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1992.

Cai:1992:CRE

[CGK92b] Xiao-Chuan Cai, William D. Gropp, and David E. Keyes. Convergence rate estimate for a domain decomposition method. *Numerische Mathematik*, 61(2):153–169, March 1992. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Cai:1993:CSD

[CGK93] Xiao-Chuan Cai, William D. Gropp, and David E. Keyes. A comparison of some domain decomposition and ILU preconditioned iterative methods for nonsymmetric elliptic problems. *Numerical Linear Algebra with Applications*, June 1993. To appear.

Cai:1994:CSD

[CGK94] Xiao-Chuan Cai, William D. Gropp, and David E. Keyes. A comparison of some domain decomposition and *ILU* preconditioned iterative methods for nonsymmetric elliptic problems. *Numerical Linear Algebra with Applications*, 1 (5):477–504, 1994. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Cai:1994:PIM

[CGKT94] X.-C. Cai, W. D. Gropp, D. E. Keyes, and M. D. Tidriri. Parallel implicit methods for aerodynamics. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 465–470. AMS, Providence, RI, USA, 1994.

Carvalho:2001:ATL

[CGL01] L. M. Carvalho, L. Giraud, and P. Le Tallec. Algebraic two-level preconditioners for the Schur complement method. *SIAM Journal on Scientific Computing*, 22(6):1987–2005, November 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/34080`.

Carvalho:2001:LPT

[CGM01] L. M. Carvalho, L. Giraud, and G. Meurant. Local preconditioners for two-level non-overlapping domain decomposition methods. *Numerical Linear Algebra with Applications*, 8(4): 207–227, June 2001. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic). URL `http://www3.interscience.wiley.com/cgi-bin/abstract/76509568/START; http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=76509568&PLACEBO=IE.pdf`.

Concus:1976:GCG

[CGO76] Paul Concus, Gene H. Golub, and Dianne P. O'Leary. A generalized conjugate gradient method for the numerical solution of elliptic PDE. In James R. Bunch and Donald J. Rose, editors, *Sparse Matrix Computations*, pages 309–332. Academic Press, New York, NY, USA, 1976.

Chen:2005:DEC

[CGPT05] H. Q. Chen, R. Glowinski, J. Periaux, and J. Toivanen. Domain embedding/controllability methods for the conjugate gradient solution of wave propagation problems. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 537–546. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Chan:1989:DDM

[CGPW89] Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors. *Domain Decomposition Methods*. SIAM, Philadelphia, PA, USA, 1989. Proceedings of the Second International Symposium on Domain Decomposition Methods, Los Angeles, California, January 14–16, 1988.

Chan:1990:TIS

[CGPW90] Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors. *Third International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1990.

Chakrabarti:2001:AQP

[CGRS01] Kaushik Chakrabarti, Minos Garofalakis, Rajeev Rastogi, and Kyuseok Shim. Approximate query processing using wavelets. *VLDB Journal: Very Large Data Bases*, 10(2–3):199–223, September 2001. CODEN VLDBFR. ISSN 1066-8888 (print), 0949-877X (electronic). URL `http://link.springer.de/link/service/journals/00778/bibs/1010002/10100199.htm; http://link.springer.de/link/service/journals/00778/papers/1010002/10100199.pdf`.

Chan:1997:MDD

[CGZ97] Tony F. Chan, Susie Go, and Jun Zou. Multilevel domain decomposition and multigrid methods for unstructured meshes: algorithms and theory. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 159–176. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Chan:1999:MSP

[CGZ99] Tony F. Chan, Susie Go, and Jun Zou. Multilevel spectral partitioning of unstructured grids. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 190–196 (electronic). DDM.org, Augsburg, 1999.

Chan:1988:DDI

[CH88] Tony F. Chan and Thomas Y. Hou. Domain decomposition interface preconditions for general second order elliptic problems. Technical Report CAM 88-16, Department of Mathematics, UCLA, 1988.

Chan:1991:EDD

[CH91] Tony F. Chan and Thomas Y. Hou. Eigendecomposition of domain decomposition interface operators for constant coefficient elliptic problems. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1471–1479, November

1991. CODEN SIJCD4. ISSN 0196-5204.

Chu:1992:CPB

[CH92] De Lin Chu and Xian Cheng Hu. Construction of a preconditioner based on domain decomposition for solving elliptic problems. *Numer. Math. J. Chinese Univ.*, 14(4):363–371, 1992. ISSN 1000-081X.

Chu:1993:PCG

[CH93] De Lin Chu and Xian Cheng Hu. A preconditioned conjugate gradient method with nonoverlapping domain decomposition. *Math. Numer. Sinica*, 15(1):58–68, 1993. ISSN 0254-7791.

Chu:1994:CGD

[CH94a] De Lin Chu and Xian Cheng Hu. The convergence of Glowinski's domain decomposition algorithm for the Stokes equations. *Acta Math. Appl. Sinica*, 17(4):489–500, 1994. CODEN YYSPDS. ISSN 0254-3079.

Chu:1994:DDM

[CH94b] De Lin Chu and Xian Cheng Hu. A domain decomposition method for solving second-order elliptic equations with finite difference approximations. *Math. Numer. Sinica*, 16 (3):233–246, 1994. ISSN 0254-7791.

Chu:1997:DDA

[CH97] Deling Chu and Xiancheng Hu. Domain decomposition algorithms for a generalized Stokes problem. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 461–467. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Codina:2006:NAH

[CH06] Ramon Codina and Guillaume Houzeaux. Numerical approximation of the heat transfer between domains separated by thin walls. *International Journal for Numerical Methods in Fluids*, 52(9):963–986, 2006. CODEN IJNFDW. ISSN 0271-2091.

Chen:2009:DDM

[CH09] Xing Ding Chen and Qi Ya Hu. A domain decomposition method with Lagrange multipliers based on geometrically non-conforming decompositions. *Math. Numer. Sin.*, 31(3):299–308, 2009. ISSN 0254-7791.

Chan:1987:APD

[Cha87] Tony F. Chan. Analysis of preconditioners for domain decomposition. *SIAM Journal on Numerical Analysis*, 24(2): 382–390, April 1987. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Chan:1988:DDA

[Cha88] T. F. Chan. Domain decomposition algorithms and computational fluid dynamics. *The*

International Journal of Supercomputer Applications, 2 (4):72–83, Winter 1988. CODEN IJSAE9. ISSN 0890-2720.

Chan:1989:DDA

[Cha89] Tony F. Chan. Domain decomposition algorithms and computational fluid dynamics. In *Vector and parallel computing (Tromsø, 1988)*, Ellis Horwood Ser. Comput. Appl., pages 65–82. Horwood, Chichester, UK, 1989.

Chan:1993:IMQ

[Cha93] Raymond H. Chan. Iterative methods for queueing networks with irregular statespaces. In *Linear algebra, Markov chains, and queueing models (Minneapolis, MN, 1992)*, volume 48 of *IMA Vol. Math. Appl.*, pages 89–109. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1993.

Chang:1997:CPS

[Cha97] Dawei Chang. On convergence of the parallel Schwarz algorithm with pseudo-boundary and the parallel multisplitting iterative method. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 251–258. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Chang:2004:DDP

[Cha04] Luo Chang. Domain decomposition procedures for parabolic equations with discontinuous coefficients. *Gongcheng Shuxue Xuebao*, 21(4):585–591, 2004. ISSN 1005-3085.

Chang:2005:DDM

[Cha05] Luo Chang. Domain decomposition method with characteristic finite element procedure for a type of parabolic systems. *Numer. Math. J. Chinese Univ.*, 27(4):338–347, 2005. ISSN 1000-081X.

Chang:2006:DDM

[Cha06] Luo Chang. Domain decomposition method modified by characteristic finite element procedure for system of parabolic equations with discontinuous coefficients. *Numer. Math. J. Chin. Univ. (Engl. Ser.)*, 15(4):336–347, 2006. ISSN 1004-8979 (print), 2079-7338 (electronic).

Chen:1988:SDD

[Che88] Hsin-Chu Chen. The SAS domain decomposition method for structural analysis. Technical Report CSRD 754; UILU-ENG-88-8003, University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, 1988. vi + 112 pp.

Chen:1995:SMP

[Che95] Shao Bing Chen. A splitting method for parabolic equations. *Nanjing Daxue Xuebao Shuxue Bannian Kan*, 12 (2):282–287, 1995. ISSN 0469-5097.

Chen:1997:SSB

[Che97] Ke Chen. Solution of singular boundary element equations based on domain splitting. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 43–50. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Chen:2005:ABP

[Che05] Yurong Chen. An accelerated block-parallel Newton method via overlapped partitioning. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 547–554. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Cautres:2002:FVS

[CHH02] René Cautrès, Raphaèle Herbin, and Florence Hubert. Finite volume scheme on non matching grids. Applications to domain decomposition methods. In *Finite volumes for complex applications, III (Porquerolles, 2002)*, pages 141–148. Hermes Sci. Publ., Paris, 2002.

Cautres:2004:LDD

[CHH04] René Cautrès, Raphaèle Herbin, and Florence Hubert. The Lions domain decomposition algorithm on non-matching cell-centred finite volume meshes. *IMA Journal of Numerical Analysis*, 24(3):465–490, July 2004. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL `http://www3.oup.co.uk/imanum/hdb/Volume_24/Issue_03/240465.sgm.abs.html; http://www3.oup.co.uk/imanum/hdb/Volume_24/Issue_03/pdf/240465.pdf`.

Chin:1981:PCD

[Chi81] R. C. Y. Chin. Parallel computation of a domain decomposition method. Technical Report CSRD 657, University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, 1981. 7 pp.

Chan:1991:GRC

[CHL91] Tony F. Chan, Thomas Y. Hou, and P. L. Lions. Geometry related convergence results for domain decomposition algorithms. *SIAM Journal on Numerical Analysis*, 28 (2):378–391, April 1991. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Ciarlet:1978:FEM

[Cia78] Philippe G. Ciarlet. *The Finite Element Method for Elliptic Problems*. North-Holland Publishing Co., Amsterdam, The Netherlands, 1978. ISBN 0-444-85028-7. xvii + 530 pp. LCCN QA3 .T3 v.49.

Ciarlet:1994:IDD

[Cia94] P. Ciarlet. Implementation of a domain decomposition method well-suited for (massively) parallel architectures. *International Journal of High Speed Computing (IJHSC)*, 6 (1):157–??, 1994. CODEN IHSCEZ. ISSN 0129-0533.

Ciccoli:1996:ADD

[Cic96] M. C. Ciccoli. Adaptive domain decomposition algorithms and finite volume/finite element approximation for advection-diffusion equations. *Journal of Scientific Computing*, 11(4):299–341, 1996. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic).

Cai:2008:SGE

[CJSS08] Wei Cai, Xia Ji, Jiguang Sun, and Sihong Shao. A Schwarz generalized eigenoscillation spectral element method (GeSEM) for 2-D high frequency electromagnetic scattering in dispersive inhomogeneous media. *Journal of computational physics*, 227(23):9933–9954, 2008. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Chan:1989:IPD

[CK89] Tony F. Chan and David F. Keyes. Interface preconditioning for domain-decomposed convection-diffusion operators. Technical Report CAM 89-28, Department of Mathematics, UCLA, 1989.

Casazza:2008:RFF

[CK08] Peter G. Casazza and Gitta Kutyniok. Robustness of fusion frames under erasures of subspaces and of local frame vectors. In *Radon transforms, geometry, and wavelets*, volume 464 of *Contemp. Math.*, pages 149–160. AMS, Providence, RI, USA, 2008.

Carstensen:1998:FPS

[CKL98] C. Carstensen, M. Kuhn, and U. Langer. Fast parallel solvers for symmetric boundary element domain decomposition equations. *Numerische Mathematik*, 79(3):321–347, May 1998. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.de/link/service/journals/00211/bibs/8079003/80790321.htm; http://science.springer.de/nmee/bibs/8079003/80790321.htm`.

Chan:1992:FIS

[CKM+92] Tony F. Chan, David E. Keyes, Gérard A. Meurant, Jeffrey S. Scroggs, and

Robert G. Voigt, editors. *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1992.

Cai:2002:NAS

[CKY02] Xiao-Chuan Cai, David E. Keyes, and David P. Young. A nonlinear additive Schwarz preconditioned inexact Newton method for shocked duct flows. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 345–352. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Clifford:1989:PAS

[CLM89] James Clifford, Bruce Lindsay, and David Maier, editors. *Proceedings of the 1989 ACM SIGMOD international conference on the management of data, Portland, Oregon, May 31–June 2, 1989*. ACM Press, New York, NY 10036, USA, 1989. ISBN ???? LCCN ????

Chen:1999:CDP

[CLYZ99] Shuping Chen, Xunjing Li, Jiongmin Yong, and Xun Yu Zhou, editors. *Control of distributed parameter and stochastic systems*. Kluwer Academic Publishers, Norwell, MA, USA, and Dordrecht, The Netherlands, 1999. ISBN 0-412-83790-0.

Chan:1991:APT

[CM91] Tony F. Chan and Tarek P. Mathew. An application of the probing technique to the vertex space method in domain decomposition. In Roland Glowinski, Yuri A. Kuznetsov, Gérard A. Meurant, Jacques Périaux, and Olof Widlund, editors, *Fourth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1991.

Chan:1992:IPT

[CM92] Tony F. Chan and Tarek P. Mathew. The interface probing technique in domain decomposition. *SIAM Journal on Matrix Analysis and Applications*, 13(1):212–238, 1992.

Cohen:2000:WAM

[CM00] A. Cohen and R. Masson. Wavelet adaptive method for second order elliptic problems: boundary conditions and domain decomposition. *Numerische Mathematik*, 86 (2):193–238, August 2000. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer-ny.com/link/service/journals/00211/bibs/0086002/00860193.htm`; `http://link.springer-ny.com/link/service/journals/00211/papers/0086002/00860193.pdf`.

Chan:1992:EVV

[CMS92] Tony F. Chan, Tarek P. Mathew, and Jian-Ping Shao. Efficient variants of the vertex space domain decomposition algorithm. Technical Report CAM 92-07, Department of Mathematics, UCLA, January 1992. To appear in SIAM J. Scientific and Statistical Computing.

Chan:1994:EVV

[CMS94] Tony F. Chan, Tarek P. Mathew, and Jian Ping Shao. Efficient variants of the vertex space domain decomposition algorithm. *SIAM Journal on Scientific Computing*, 15(6): 1349–1374, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Clement:2006:DDS

[CMV+06] F. Clément, V. Martin, A. Vodicka, R. Di Cosmo, and P. Weis. Domain decomposition and skeleton programming with OCamlP3l. *Parallel Computing*, 32(7–8):539–550, September 2006. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Cowsar:1992:BDD

[CMW92] Lawrence Cowsar, Jan Mandel, and Mary F. Wheeler. Balancing domain decomposition for mixed problems in oil reservoir simulation. Presented at the 6th International Symposium on Domain Decomposition Methods, Como, Italy, 1992, 1992.

Cowsar:1993:BDD

[CMW93] Lawrence C. Cowsar, Jan Mandel, and Mary F. Wheeler. Balancing domain decomposition for mixed finite elements. Technical Report TR93-08, Department of Mathematical Sciences, Rice University, March 1993.

Cowsar:1995:BDD

[CMW95] Lawrence C. Cowsar, Jan Mandel, and Mary F. Wheeler. Balancing domain decomposition for mixed finite elements. *Mathematics of Computation*, 64(211):989–1015, July 1995. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Cai:2009:NSM

[CMX09] Mingchao Cai, Mo Mu, and Jinchao Xu. Numerical solution to a mixed Navier–Stokes/Darcy model by the two-grid approach. *SIAM Journal on Numerical Analysis*, 47(5):3325–3338, 2009. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Coron:1990:ECA

[Cor90] F. Coron. Errata: "Computation of the asymptotic states for linear half space kinetic problems". *Transport Theory Statist. Phys.*, 19(6):581, 1990.

CODEN TTSPB4. ISSN 0041-1450.

Coron:1994:CBF

[Cor94] F. Coron. Coupling Boltzmann and fluid equations. In *Computational aeronautical fluid dynamics (Antibes, 1989)*, volume 44 of *Inst. Math. Appl. Conf. Ser. New Ser.*, pages 71–78. Oxford Univ. Press, New York, NY, USA, 1994.

Cottet:1991:PGD

[Cot91] G.-H. Cottet. Particle-grid domain decomposition methods for the Navier–Stokes equations in exterior domains. In *Vortex dynamics and vortex methods (Seattle, WA, 1990)*, volume 28 of *Lectures in Appl. Math.*, pages 103–117. AMS, Providence, RI, USA, 1991.

Cowsar:1993:DVS

[Cow93] Lawrence C. Cowsar. Dual variable Schwarz methods for mixed finite elements. Technical Report TR93-09, Department of Mathematical Sciences, Rice University, March 1993.

Charpentier:1996:DDM

[CP96] I. Charpentier and J. Saint Jean Paulin. Domain decomposition methods for the study of the particular behavior of a very thin long structure. *Numerical Methods for Partial Differential Equations*, 12(6): 643–655, 1996. CODEN NMPDEB. ISSN 0749-159X.

Carvalho:1997:PCC

[CP97] L. M. R. Carvalho and J. M. L. M. Palma. Parallelization of a CFD code using PVM and domain decomposition techniques. *Lecture Notes in Computer Science*, 1215:247–??, 1997. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Charmpis:2005:GBS

[CP05] Dimos C. Charmpis and Manolis Papadrakakis. Generation of balanced subdomain clusters with minimum interface for distributed domain decomposition applications. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 555–562. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Cai:2003:DDM

[CPR+03] Z. Cai, R. R. Parashkevov, T. F. Russell, J. D. Wilson, and X. Ye. Domain decomposition for a mixed finite element method in three dimensions. *SIAM Journal on Numerical Analysis*, 41 (1):181–194, February 2003. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/29693`.

Cai:1999:EMM

[CPS99] Xiao-Chuan Cai, Marius Paraschivoiu, and Marcus Sarkis. An explicit multi-model compressible flow formulation based on the full potential equation and the Euler equations on 3D unstructured meshes. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 159–177 (electronic). DDM.org, Augsburg, 1999.

Ciegis:2000:ASM

[ČPZ00] Raimondas Čiegis, Areti Papastavrou, and Aivars Zemitis. Additive splitting methods for elliptic-parabolic problems. *Ann. Univ. Ferrara Sez. VII (N.S.)*, 46:291–306, 2000. CODEN AUFMAX. Navier–Stokes equations and related nonlinear problems (Ferrara, 1999).

Canuto:1990:SHO

[CQ90] Claudio Canuto and Alfio Quarteroni, editors. *Spectral and high order methods for partial differential equations*. North-Holland Publishing Co., Amsterdam, The Netherlands, 1990. ISBN 0-444-88475-0.

Carlenzoli:1995:ADD

[CQ95] Claudio Carlenzoli and Alfio Quarteroni. Adaptive domain decomposition methods for advection-diffusion problems. In *Modeling, mesh generation, and adaptive numerical methods for partial differential equations (Minneapolis, MN, 1993)*, volume 75 of *IMA Vol. Math. Appl.*, pages 165–186. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1995.

Chan:1985:DDF

[CR85a] Tony F. Chan and Diana C. Resasco. A domain-decomposed fast Poisson solver on a rectangle. Technical Report /DCS/RR-409, Yale University, 1985.

Chan:1985:SPD

[CR85b] Tony F. Chan and Diana C. Resasco. A survey of preconditioners for domain decomposition. Technical Report /DCS/RR-414, Yale University, 1985.

Chan:1987:ADD

[CR87] Tony F. Chan and Diana C. Resasco. Analysis of domain decomposition preconditioners on irregular regions. In R. Vichnevetsky and R. Stepleman, editors, *Advances in Computer Methods for Partial Differential Equations*. IMACS, Department of Computer Science, Rutgers University, New Brunswick, NJ, 1987.

Chan:1988:ADD

[CR88] Tony F. Chan and Diana C. Resasco. An analysis of domain decomposition precondi-

tioners on L-shaped and C-shaped regions. Technical Report /DCS/RR-534, Yale University, 1988.

Cosnard:1989:PDA

[CRQR89] Michel Cosnard, Yves Robert, Patrice Quinton, and Michel Raynal, editors. *Parallel & distributed algorithms*. North-Holland Publishing Co., Amsterdam, The Netherlands, 1989. ISBN 0-444-87367-8.

Cosnard:1986:PAA

[CRQT86] Michel Cosnard, Yves Robert, Patrice Quinton, and Maurice Tchuente, editors. *Parallel algorithms & architectures*. North-Holland Publishing Co., Amsterdam, The Netherlands, 1986. ISBN 0-444-70104-4.

Chen:1989:DDM

[CS89] Hsin-Chu Chen and Ahmed Sameh. A domain decomposition method for 3D elasticity problems. Technical Report CSRD 890, University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, September 1989. 18 pp.

Chan:1994:DDM

[CS94] Tony F. Chan and Barry F. Smith. Domain decomposition and multigrid algorithms for elliptic problems on unstructured meshes. *Electronic Transactions on Numerical Analysis*, 2:171–182, 1994. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL `http://etna.mcs.kent.edu/vol.2.1994/pp171-182.dir/pp171-182.pdf`.

Chan:1995:PCD

[CS95] Tony F. Chan and Jian Ping Shao. Parallel complexity of domain decomposition methods and optimal coarse grid size. *Parallel Computing*, 21(7):1033–1049, July 11, 1995. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/parco/cas_sub/browse/browse.cgi?year=1995&volume=21&issue=7&aid=988`.

Cai:1996:ODD

[CS96] Xiao-Chuan Cai and Yousef Saad. Overlapping domain decomposition algorithms for general sparse matrices. *Numerical Linear Algebra with Applications*, 3 (3):221–237, May/June 1996. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic). URL `http://www3.interscience.wiley.com/cgi-bin/abstract?ID=15000988`.

Chui:1998:ATI

[CS98] Charles K. Chui and Larry L. Schumaker, editors. *Approximation theory IX. Vol. 2*, Innovations in Applied Mathematics. Vanderbilt University

Press, Nashville, TN, 1998. ISBN 0-8265-1326-3. Computational aspects.

Chen:2005:MHA

[CSX05] Long Chen, Pengtao Sun, and Jinchao Xu. Multilevel homotopic adaptive finite element methods for convection dominated problems. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 459–468. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Chan:1996:OSM

[CSZ96] Tony F. Chan, Barry F. Smith, and Jun Zou. Overlapping Schwarz methods on unstructured meshes using non-matching coarse grids. *Numerische Mathematik*, 73(2): 149–167, April 1996. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.de/link/service/journals/00211/bibs/6073002/60730149.htm; http://science.springer.de/nmee/bibs/6073002/60730149.htm`.

Calugaru:2005:NOD

[CTD05] Dan-Gabriel Calugaru and Damien Tromeur-Dervout. Non-overlapping DDMs to solve flow in heterogeneous porous media. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 529–536. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Canuto:1998:NSE

[CTU98] C. Canuto, A. Tabacco, and K. Urban. Numerical solution of elliptic problems by the wavelet element method. In *ENUMATH 97 (Heidelberg)*, pages 17–37. World Sci. Publ., River Edge, NJ, 1998.

Cowsar:1991:PDDb

[CW91] Lawrence C. Cowsar and Mary F. Wheeler. Parallel domain decomposition method for mixed finite elements for elliptic partial differential equations. In Roland Glowinski, Yuri A. Kuznetsov, Gérard A. Meurant, Jacques Périaux, and Olof Widlund, editors, *Proceedings of the Fourth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1991.

Cai:1992:DDA

[CW92] Xiao-Chuan Cai and Olof Widlund. Domain decomposition algorithms for indefinite elliptic problems. *SIAM Journal on Scientific and Statistical Computing*, 13(1):243–258, January 1992.

Cai:1993:MSA

[CW93] Xiao-Chuan Cai and Olof B. Widlund. Multiplicative Schwarz algorithms for some nonsymmetric and indefinite problems. *SIAM Journal on Numerical Analysis*, 30(4): 936–952, September 1993. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Casarin:1999:OSM

[CW99a] M. A. Casarin and O. B. Widlund. Overlapping Schwarz methods for Helmholtz's equation. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 178–189 (electronic). DDM.org, Augsburg, 1999.

Coclici:1999:DDM

[CW99b] C. Coclici and W. L. Wendland. Domain decomposition methods and far-field boundary conditions for 2D compressible viscous flows. In *Recent advances in numerical methods and applications, II (Sofia, 1998)*, pages 429–437. World Sci. Publ., River Edge, NJ, 1999.

Cocle:2008:CVC

[CWD08] Roger Cocle, Grégoire Winckelmans, and Goéric Daeninck. Combining the vortex-in-cell and parallel fast multipole methods for efficient domain decomposition simulations. *Journal of computational physics*, 227(21):9091–9120, 2008. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Cowsar:1992:PMD

[CWW92] Lawrence C. Cowsar, Alan Weiser, and Mary F. Wheeler. Parallel multigrid and domain decomposition algorithms for elliptic equations. In David E. Keyes, Tony F. Chan, Gérard Meurant, Jeffrey S. Scroggs, and Robert G. Voigt, editors, *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations (Norfolk, VA, 1991)*, pages 376–385. SIAM, Philadelphia, PA, USA, 1992. ISBN 0-89871-288-2. LCCN QA402.2 .I57 1991.

Carlenzoli:1991:DDA

[CZ91] Claudio Carlenzoli and Paola Zanolli. Domain decomposition approximation to a generalized Stokes problem by spectral methods. *Mathematical models and methods in applied sciences*, 1(4):501–515, 1991. CODEN MMMSEU. ISSN 0218-2025.

Chan:1994:ASD

[CZ94] Tony F. Chan and Jun Zou. Additive Schwarz domain decomposition methods for elliptic problems on unstructured meshes. *Numerical Algorithms*, 8(2–4):329–346, January 1994. CODEN NUALEG. ISSN 1017-1398 (print),

1572-9265 (electronic). See erratum [CZ95].

Chan:1995:EAS

[CZ95] Tony F. Chan and Jun Zou. Erratum to: "Additive Schwarz domain decomposition methods for elliptic problems on unstructured meshes" [Numer. Algorithms **8** (1994), no. 2–4, 329–346, MR 95i:65174]. *Numerical Algorithms*, 9(3–4):397, ???? 1995. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). See [CZ94].

Chan:1996:CTM

[CZ96] Tony F. Chan and Jun Zou. A convergence theory of multilevel additive Schwarz methods on unstructured meshes. *Numerical Algorithms*, 13(3–4):365–398 (1997), ???? 1996. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Dagum:1993:APU

[Dag93] Leonardo Dagum. Automatic partitioning of unstructured grids into connected components. In IEEE [IEE93], pages 94–101. ISBN 0-8186-4340-4 (paperback), 0-8186-4341-2 (microfiche), 0-8186-4342-0 (hardcover), 0-8186-4346-3 (CD-ROM). ISSN 1063-9535. LCCN QA76.5 .S96 1993.

Dannevik:1991:CMM

[Dan91] W. Dannevik. Computing modeling in a MIMD environment. In IEEE [IEE91], pages 678–?? ISBN 0-8186-9158-1 (IEEE case), 0-8186-2158-3 (IEEE paper), 0-8186-6158-5 (IEEE microfiche), 0-89791-459-7 (ACM). LCCN QA76.5 .S894 1991. ACM order number 415913. IEEE Computer Society Press order number 2158. IEEE catalog number 91CH3058-5.

Danek:2002:DDA

[Dan02] Josef Daněk. Domain decomposition algorithm for solving contact of elastic bodies. *Lecture Notes in Computer Science*, 2331:820–829, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2331/23310820.htm; http://link.springer-ny.com/link/service/series/0558/papers/2331/23310820.pdf`.

Darvishi:2004:PDD

[Dar04] M. T. Darvishi. Preconditioning and domain decomposition schemes to solve PDEs. *International Journal of Pure and Applied Mathematics*, 15 (4):419–439, 2004. ISSN 1311-8080.

Davies:2001:DDA

[Dav01] A. J. Davies. Domain decomposition approaches to the boundary element method. In *Boundary elements, XXIII (Lemnos, 2001)*, volume 10

of *Adv. Bound. Elem.*, pages 413–422. WIT Press, Southampton, UK, 2001.

doCarmo:2000:DFE

[dCD00] Eduardo Gomes Dutra do Carmo and André Vinicius Celani Duarte. A discontinuous finite element-based domain decomposition method. *Computer Methods in Applied Mechanics and Engineering*, 190(8–10):825–843, 2000. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

deCastro:2006:NMA

[dCGQS06] Alfredo Bermúdez de Castro, Dolores Gómez, Peregrina Quintela, and Pilar Salgado, editors. *Numerical mathematics and advanced applications*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006. ISBN 3-540-34287-7.

Dawson:1991:DDM

[DD91] Clint N. Dawson and Qiang Du. A domain decomposition method for parabolic equations based on finite elements. In Roland Glowinski, Yuri A. Kuznetsov, Gérard A. Meurant, Jacques Périaux, and Olof Widlund, editors, *Fourth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1991.

Dawson:1992:EIC

[DD92] Clint N. Dawson and Todd F. Dupont. Explicit/implicit conservative Galerkin domain decomposition procedures for parabolic problems. *Mathematics of Computation*, 58 (197):21–34, January 1992. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Dawson:1994:EIC

[DD94] Clint N. Dawson and Todd F. Dupont. Explicit/implicit, conservative domain decomposition procedures for parabolic problems based on block-centered finite differences. *SIAM Journal on Numerical Analysis*, 31(4):1045–1061, August 1994. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Domoradova:2007:PPP

[DD07] Marta Domorádová and Zdeněk Dostál. Projector preconditioning for partially bound-constrained quadratic optimization. *Numerical Linear Algebra with Applications*, 14 (10):791–806, 2007. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Dawson:1991:FDD

[DDD91] Clint N. Dawson, Qiang Du, and Todd F. Dupont. A finite difference domain decomposition algorithm for numerical solution of the heat equation.

Mathematics of Computation, 57(195):63–71, July 1991. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

DAmbra:2010:MPP

[DDF10] Pasqua D'Ambra, Daniela Di Serafino, and Salvatore Filippone. MLD2P4: a package of parallel algebraic multilevel domain decomposition preconditioners in Fortran 95. *ACM Transactions on Mathematical Software*, 37(3):30:1–30:23, September 2010. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Dongarra:1989:VPC

[DDGM89] Jack Dongarra, Iain Duff, Patrick Gaffney, and Sean McKee, editors. *Vector and parallel computing*, Ellis Horwood Series in Computers and Their Applications. Ellis Horwood, New York, NY, USA, 1989. ISBN 0-13-963117-8. Issues in applied research and development.

Darmana:2006:PEL

[DDK06] D. Darmana, N. G. Deen, and J. A. M. Kuipers. Parallelization of an Euler–Lagrange model using mixed domain decomposition and a mirror domain technique: application to dispersed gas-liquid two-phase flow. *Journal of computational physics*, 220(1):216–248, 2006. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Degond:2007:MIM

[DDM07] Pierre Degond, Giacomo Dimarco, and Luc Mieussens. A moving interface method for dynamic kinetic-fluid coupling. *Journal of computational physics*, 227(2):1176–1208, 2007. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Deshpande:1995:FIC

[DDN95] S. M. Deshpande, S. S. Desai, and R. Narasimha, editors. *Fourteenth International Conference on Numerical Methods in Fluid Dynamics*, volume 453 of *Lecture Notes in Physics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1995. ISBN 3-540-59280-6.

Demaret:1989:NSS

[DDS89a] P. Demaret, M. Deville, and C. Schneidesch. Navier–Stokes solutions by spectral multidomain decomposition and finite element preconditioning: application to thermal convection. In *Numerical and applied mathematics, Part II (Paris, 1988)*, volume 1 of *IMACS Ann. Comput. Appl. Math.*, pages 725–727. Baltzer, Basel, Switzerland, 1989.

Demaret:1989:TCS

[DDS89b] P. Demaret, M. O. Deville, and C. Schneidesch.

Thermal convection solutions by Chebyshev pseudospectral multi-domain decomposition and finite element preconditioning. *Applied Numerical Mathematics: Transactions of IMACS*, 6(1–2):107–121, December 1989. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). Spectral multi-domain methods (Paris, 1988).

DeRoeck:1991:ROM

[De 91] Yann-Hervé De Roeck. *Résolution sur Ordinateurs Multi-Processeurs de Problème d'Élasticité par Décomposition de Domaines. (French) [Multiprocessor-computer resolution of the elasticity problem by domain decomposition]*. PhD thesis, Université Paris IX Daupine, Paris, France, 1991.

Dekker:2001:PGD

[Dek01] K. Dekker. Partitioned-GMRES in domain decomposition with approximate subdomain solution. *BIT Numerical Mathematics*, 41 (5, suppl.):924–935, December 2001. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=41&issue=5&spage=924`. BIT 40th Anniversary Meeting.

[Den97] **Deng:1997:TCA**

Qingping Deng. Timely communication: An analysis for a nonoverlapping domain decomposition iterative procedure. *SIAM Journal on Scientific Computing*, 18(5): 1517–1525, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/28679`.

[Den03] **Deng:2003:OPN**

Qingping Deng. An optimal parallel nonoverlapping domain decomposition iterative procedure. *SIAM Journal on Numerical Analysis*, 41(3): 964–982, June 2003. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/40128`.

[Des90] **Despres:1990:DDP**

Bruno Després. Décomposition de domaine et problème de Helmholtz. (French) [Domain decomposition in the Helmholtz problem]. *Comptes Rendus des Séances de l'Académie des Sciences. Série I. Mathématique*, 311(6):313–316, 1990. CODEN CASMEI. ISSN 0764-4442 (print), 1778-3577 (electronic).

[Des91] **Despres:1991:MDD**

Bruno Després. *Méthodes de décomposition de domaine*

pour les problèmes de propagation d'ondes en régime harmonique. Le théorème de Borg pour l'équation de Hill vectorielle. (French) [Domain-decomposition methods for the problem of wave propagation in a harmonic regime. Borg's theorem for the vector Hill equation]. Institut National de Recherche en Informatique et en Automatique (INRIA), Rocquencourt, France, 1991. ISBN 2-7261-0706-0. vi + 233 pp. Thèse, Université de Paris IX (Dauphine), Paris, 1991.

Deville:1990:CCS

[Dev90] M. O. Deville. Chebyshev collocation solutions of flow problems. *Computer Methods in Applied Mechanics and Engineering*, 80(1–3):27–37, 1990. CODEN CMMECC. ISSN 0045-7825, 0374-2830. Spectral and high order methods for partial differential equations (Como, 1989).

Desideri:1993:OC

[DFLR93] J.-A. Désidéri, L. Fézoui, B. Larrouturou, and B. Rousselet, editors. *Optimisation et contrôle*. Cépaduès Éditions, Toulouse, France, 1993. ISBN 2-85428-332-5.

Dostal:1998:FDD

[DFS98] Zdenêk Dostál, Ana Friedlander, and Sandra Augusta Santos. FETI domain decomposition for semicoercive contact problems. In *Computational mechanics (Buenos Aires, 1998)*, pages CD–ROM file. Centro Internac. Métodos Numér. Ing., Barcelona, Spain, 1998.

Du:2000:GMA

[DG00] Qiang Du and Max D. Gunzburger. A gradient method approach to optimization-based multidisciplinary simulations and nonoverlapping domain decomposition algorithms. *SIAM Journal on Numerical Analysis*, 37(5):1513–1541, October 2000. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/34308`.

Daoud:2007:TLE

[DG07] Daoud S. Daoud and N. Gurbuz. Time lagging and explicit interface prediction for nonoverlapping domain decomposition with parallel additive splitting method for multi-dimensional parabolic problem. *Applied Mathematics and Computation*, 186(2): 1094–1103, March 15, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Dashevski:2002:FDB

[DGKL02] D. Dashevski, R. Glowinski, Yu. Kuznetsov, and K. Lipnikov. Fictitious domain based solvers for particulate flows. In *Domain decomposition meth-*

ods in science and engineering (Lyon, 2000), Theory Eng. Appl. Comput. Methods, pages 353–360. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Dinh:1980:ADD

[DGP80] R. V. Dinh, R. Glowinski, and J. Periaux. Applications of domain decomposition techniques to the numerical solution of the Navier–Stokes equations. In *Numerical methods for engineering, 1 (Paris, 1980)*, pages 383–404. Dunod, Paris, France, 1980.

Dihn:1984:SEP

[DGP84] Q. V. Dihn, Roland Glowinski, and Jacques Périaux. Solving elliptic problems by domain decomposition methods with applications. In Garrett Birkhoff and Arthur Schoenstadt, editors, *Elliptic problem solvers, II (Monterey, Calif., 1983)*, pages 395–426. Academic Press, New York, NY, USA, 1984.

Dinh:1988:CVI

[DGPT88] Q. V. Dinh, R. Glowinski, J. Périaux, and G. Terrasson. On the coupling of viscous and inviscid models for incompressible fluid flows via domain decomposition. In *First International Symposium on Domain Decomposition Methods for Partial Differential Equations (Paris, 1987)*, pages 350–369. SIAM, Philadelphia, PA, USA, 1988.

Dostal:2001:FDD

[DGS01] Zdeněk Dostál, Francisco A. M. Gomes, and Sandra A. Santos. FETI domain decomposition for contact 3D problems. In *Finite element methods (Jyväskylä, 2000)*, volume 15 of *GAKUTO Internat. Ser. Math. Sci. Appl.*, pages 54–65. Gakkōtosho, Tokyo, Japan, 2001.

Dryja:2007:BMD

[DGS07] Maksymilian Dryja, Juan Galvis, and Marcus Sarkis. BDDC methods for discontinuous Galerkin discretization of elliptic problems. *Journal of complexity*, 23(4–6):715–739, 2007. CODEN JOCOEH. ISSN 0885-064X (print), 1090-2708 (electronic).

dHennezel:1992:MDD

[d'H92] Frédéric d'Hennezel. *Méthodes de décomposition de domaine dans les structures et les multi-structures élastiques. (French) [Domain-decomposition methods in structures and multi-structures].* Institut National de Recherche en Informatique et en Automatique (INRIA), Rocquencourt, France, 1992. ISBN 2-7261-0725-7. 158 pp. Thèse, Université Paris VI, Paris, 1992.

dHennezel:1993:DDM

[d'H93] Frédéric d'Hennezel. Domain decomposition method and elastic multi-structures: the stiffened plate problem. *Numerische Mathematik*, 66 (2):181–197, November 1993. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Douglas:1997:ADD

[DH97a] J. Douglas, Jr. and C.-S. Huang. An accelerated domain decomposition procedure based on Robin transmission conditions. *BIT Numerical Mathematics*, 37(3):678–686, September 1997. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.mai.liu.se/BIT/contents/bit37.html`. Direct methods, linear algebra in optimization, iterative methods (Toulouse, 1995/1996).

Dryja:1997:NDD

[DH97b] M. Dryja and W. Hackbusch. On the nonlinear domain decomposition method. *BIT Numerical Mathematics*, 37(2):296–311, June 1997. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.mai.liu.se/BIT/contents/bit37.html`.

Douglas:1998:ADD

[DH98] Jim Douglas, Jr. and Chieh-Sen Huang. Accelerated domain decomposition iterative procedures for mixed methods based on Robin transmission conditions. *Calcolo*, 35(3):131–147, 1998. CODEN CALOBK. ISSN 0008-0624 (print), 1126-5434 (electronic).

Dostal:2005:SAN

[DH05] Zdeněk Dostál and David Horák. On scalable algorithms for numerical solution of variational inequalities based on FETI and semi-monotonic augmented Lagrangians. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 487–494. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Dostal:2006:TFE

[DHK06] Zdeněk Dostál, David Horák, and Radek Kučera. Total FETI—an easier implementable variant of the FETI method for numerical solution of elliptic PDE. *Communications in Numerical Methods in Engineering*, 22(12):1155–1162, 2006. CODEN CANMER. ISSN 1069-8299.

Dostal:2002:SFV

[DHSV02] Zdeněk Dostál, David Horák, Jan Szweda, and Vít Vondrák.

Scalabilities of FETI for variational inequalities and contact shape optimization. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 361–369. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Diaz:2003:IMC

[DHY03] M. A. Diaz, I. Herrera, and R. Yates. Indirect method of collocation: 2^{nd} order elliptic equations. In *Domain decomposition methods in science and engineering*, pages 249–255 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Discacciati:2005:IMS

[Dis05] Marco Discacciati. Iterative methods for Stokes/Darcy coupling. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 563–570. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Duc:1995:AMC

[DKKV95] D. M. Duc, B. D. Khanh, P. Q. Khanh, and T. D. Van, editors. *Analysis and mechanics of continuous media*, volume 3 of *Publications of the HoChiMinh City Mathematical Society*. HoChiMinh City Mathematical Society, Ho Chi Minh City, Vietnam, 1995.

Dongarra:1992:PPS

[DKM+92] Jack Dongarra, Ken Kennedy, Paul Messina, Danny C. Sorensen, and Robert G. Voigt, editors. *Parallel processing for scientific computing*. SIAM, Philadelphia, PA, USA, 1992. ISBN 0-89871-303-X.

Dostal:2010:STA

[DKV+10] Z. Dostál, T. Kozubek, V. Vondrák, T. Brzobohatý, and A. Markopoulos. Scalable TFETI algorithm for the solution of multibody contact problems of elasticity. *International Journal for Numerical Methods in Engineering*, 82(11):1384–1405, 2010. CODEN IJNMBH. ISSN 0029-5981.

Dohrmann:2008:DDL

[DKW08] Clark R. Dohrmann, Axel Klawonn, and Olof B. Widlund. Domain decomposition for less regular subdomains: Overlapping Schwarz in two dimensions. *SIAM Journal on Numerical Analysis*, 46(4):2153–2168, ???? 2008. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Dolean:2001:HDD

[DL01] Victorita Dolean and Stéphane Lanteri. A hybrid domain decomposition and multigrid method for the acceleration of compressible viscous flow calculations on unstructured

triangular meshes. *International Journal of Computational Fluid Dynamics*, 14 (4):287–304, 2001. CODEN IJCFEC. ISSN 1061-8562.

Du:2010:EDI

[DL10] Chuanbin Du and Dong Liang. An efficient S–DDM iterative approach for compressible contamination fluid flows in porous media. *Journal of computational physics*, 229(12):4501–4521, June 20, 2010. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0021999110000999`.

Dolean:2002:NDD

[DLN02] V. Dolean, D. Lanteri, and F. Nataf. Nonoverlapping domain decomposition algorithms for the system of Euler equations. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 455–462. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Djambazov:2002:ADC

[DLPW02] G. S. Djambazov, C.-H. Lai, K. A. Pericleous, and Z.-K. Wang. Analysis of a defect correction method for computational aeroacoustics. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 447–454. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Duff:1989:EOP

[DM89] Iain S. Duff and Gérard A. Meurant. The effect of ordering on preconditioned conjugate gradients. *BIT (Nordisk tidskrift for informationsbehandling)*, 29(4):635–657, 1989. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Delis:2009:FVM

[DM09] A. I. Delis and E. N. Mathioudakis. A finite volume method parallelization for the simulation of free surface shallow water flows. *Mathematics and Computers in Simulation*, 79(11):3339–3359, 2009. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic).

Deo:1998:LBP

[DMP98] Narsingh Deo, Muralidhar Medidi, and Sushil K. Prasad. Load balancing in parallel battlefield management simulation on local- and shared-memory architectures. *International Journal of Computer Systems Science and Engineering*, 13(1):55–65, January 1998. CODEN CSSEEI. ISSN 0267-6192.

Dinh:1983:ASN

[DMPG83] Q. V. Dinh, B. Mantel, J. Périaux, and R. Glowin-

ski. Approximate solution of the Navier–Stokes equations for incompressible viscous fluids. Related domain decomposition methods. In *Numerical methods (Caracas, 1982)*, volume 1005 of *Lecture Notes in Math.*, pages 46–86. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1983.

Du:2001:EPA

[DMW01] Q. Du, M. Mu, and Z. N. Wu. Efficient parallel algorithms for parabolic problems. *SIAM Journal on Numerical Analysis*, 39(5):1469–1487 (electronic), 2001. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Dolean:2006:NDD

[DN06] Victorita Dolean and Frédéric Nataf. A new domain decomposition method for the compressible Euler equations. *Mathematical modelling and numerical analysis = Modelisation mathématique et analyse numérique: M^2AN*, 40 (4):689–703, 2006. CODEN RMMAEV. ISSN 0764-583X (print), 1290-3841 (electronic).

Dolean:2009:DND

[DNR09] Victorita Dolean, Frédéric Nataf, and Gerd Rapin. Deriving a new domain decomposition method for the Stokes equations using the Smith factorization. *Mathematics of Computation*, 78 (266):789–814, April 2009. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/journals/mcom/2009-78-266/S0025-5718-08-02172-8/home.html`; `http://www.ams.org/journals/mcom/2009-78-266/S0025-5718-08-02172-8/S0025-5718-08-02172-8.pdf`.

Dostal:2000:DBDa

[DNS00a] Zdeněk Dostál, Francisco A. M. Gomes Neto, and Sandra A. Santos. Duality based domain decomposition with adaptive natural coarse grid projectors for contact problems. In *The mathematics of finite elements and applications, X, MAFELAP 1999 (Uxbridge)*, pages 259–270. Elsevier, Amsterdam, The Netherlands, 2000.

Dostal:2000:DBDb

[DNS00b] Zdeněk Dostál, Francisco A. M. Gomes Neto, and Sandra A. Santos. Duality-based domain decomposition with natural coarse-space for variational inequalities. *Journal of Computational and Applied Mathematics*, 126(1–2): 397–415, 2000. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic).

Dong:1989:DPD

[Don89] Guozhu Dong. On distributed processibility of dat-

alog queries by decomposing databases. In Clifford et al. [CLM89], pages 26–35. ISBN ???? LCCN ???? URL `http://www.acm.org/pubs/articles/proceedings/mod/67544/p26-dong/p26-dong.pdf; http://www.acm.org/pubs/citations/proceedings/mod/67544/p26-dong/`.

Donato:1991:IMS

[Don91] June M. Donato. *Iterative Methods for Scalar and Coupled Systems of Elliptic Equations*. PhD thesis, Department of Mathematics, UCLA, September 1991. CAM 91-20.

Dorr:1991:DDP

[Dor91] Milo R. Dorr. A domain decomposition preconditioner with reduced rank interdomain coupling. *Applied Numerical Mathematics: Transactions of IMACS*, 8(4–5):333–352, November 1991. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Dostal:1990:PPD

[Dos90] Zdeněk Dostál. Projector preconditioning and domain decomposition methods. *Applied Mathematics and Computation*, 37(2 (part II)):75–81, May 1990. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Dostal:1995:DBD

[Dos95] Zdeněk Dostál. Duality based domain decomposition with proportioning for the solution of free boundary problems. *Journal of Computational and Applied Mathematics*, 63(1–3):203–208, 1995. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). International Symposium on Mathematical Modelling and Computational Methods Modelling 94 (Prague, 1994).

Douglas:1991:TAD

[Dou91] Craig C. Douglas. A tupleware approach to domain decomposition methods. *Applied Numerical Mathematics: Transactions of IMACS*, 8(4–5):353–373, November 1991. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Douglas:1992:MMD

[Dou92] Craig C. Douglas. MGNet: a multigrid and domain decomposition network. *ACM SIGNUM Newsletter*, 27(4):2–8, October 1992. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Dryja:2003:DPM

[DP03] M. Dryja and W. Proskurowski. Dual preconditioners for mortar discretization of elliptic problems. In *Domain decomposition methods in science and engineering*, pages 257–263 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Dryja:2005:FDM

[DP05] Maksymilian Dryja and Wlodek Proskurowski. A FETI-DP method for the mortar discretization of elliptic problems with discontinuous coefficients. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 345–352. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Dimarco:2008:DDT

[DP08] G. Dimarco and L. Pareschi. Domain decomposition techniques and hybrid multiscale methods for kinetic equations. In *Hyperbolic problems: theory, numerics, applications*, pages 457–464. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Diyak:2009:CNP

[DP09] Ī. Ī. Diyak and Ī. Ī. Prokopishin. Convergence of the Neumann parallel scheme of domain decomposition for frictionless contact problems for several elastic bodies. *Mat. Metodi Fiz.-Mekh. Polya*, 52(3):78–89, 2009. ISSN 0130-9420.

Douglas:1993:MPI

[DPLPY93] Jim Douglas, Jr., P. J. Paes-Leme, Felipe Pereira, and Li Ming Yeh. A massively parallel iterative numerical algorithm for immiscible flow in naturally fractured reservoirs. In *Flow in porous media (Oberwolfach, 1992)*, volume 114 of *Internat. Ser. Numer. Math.*, pages 75–93. Birkhäuser Verlag, Basel, Switzerland, 1993.

Douglas:1993:PIP

[DPRW93] J. Douglas, Jr., P. J. Paes Leme, J. E. Roberts, and Junping Wang. A parallel iterative procedure applicable to the approximate solution of second order partial differential equations by mixed finite element methods. *Numerische Mathematik*, 65(1): 95–108, May 1993. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Dryja:1986:MDD

[DPW86] Maksymilian Dryja, Wlodek Proskurowski, and Olof Widlund. A method of domain decomposition with crosspoints for elliptic finite element problems. In Bl. Sendov, editor, *Optimal Algorithms*, pages 97–111. Bulgarian Academy of Sciences, Sofia, Bulgaria, 1986.

Discacciati:2003:ADD

[DQ03] M. Discacciati and A. Quarteroni. Analysis of a domain decomposition method for the coupling of Stokes and Darcy equations. In *Numerical mathematics and advanced applications*, pages 3–20. Springer Italia, Milan, 2003.

Discacciati:2007:RRD

[DQV07] Marco Discacciati, Alfio Quarteroni, and Alberto Valli. Robin–Robin domain decomposition methods for the Stokes–Darcy coupling. *SIAM Journal on Numerical Analysis*, 45(3):1246–1268, ???? 2007. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Diaz:2004:NST

[DRGM04] Manuel J. Castro Díaz, José A. García Rodriguez, José M. González Vida, and Carlos Parés Madroñal. Numerical solution of two-layer shallow water equations using finite volume schemes. In *Notes from the XIth Jacques-Louis Lions Hispano-French School on Numerical Simulation in Physics and Engineering (Spanish)*, pages 199–216. Grupo Anal. Teor. Numer. Modelos Cienc. Exp. Univ. Cádiz, Cádiz, 2004.

Driscoll:1999:NDD

[Dri99] Tobin A. Driscoll. A nonoverlapping domain decomposition method for Symm's equation for conformal mapping. *SIAM Journal on Numerical Analysis*, 36(3):922–934, June 1999. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/32416`.

Dedner:2004:PLB

[DRSW04] Andreas Dedner, Christian Rohde, Bernhard Schupp, and Matthias Wesenberg. A parallel, load-balanced MHD code on locally-adapted unstructured grids in 3d. *Computing and Visualization in Science*, 7(2):79–96, 2004. ISSN 1432-9360.

Dick:2000:MMV

[DRV00] Erik Dick, Kris Riemslaagh, and Jan Vierendeels, editors. *Multigrid methods VI : proceedings of the Sixth European Multigrid Conference, held in Gent, Belgium, September 27–30, 1999*, volume 14 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000. ISBN 3-540-67157-9. ISSN 1439-7358. LCCN QA377 .E94 1999.

Dryja:1981:ACM

[Dry81] Maksymilian Dryja. An algorithm with a capacitance matrix for a variational-difference scheme. In G. I. Marchuk, editor, *Variational-Difference Methods in Mathematical Physics*, pages 63–73. USSRAcademy of Sciences, Moscow, USSR, 1981.

Dryja:1982:CMM

[Dry82] Maksymilian Dryja. A capacitance matrix method for Dirichlet problem on polygon

region. *Numerische Mathematik*, 39:51–64, 1982.

Dryja:1984:FEC

[Dry84] Maksymilian Dryja. A finite element-capacitance method for elliptic problems on regions partitioned into subregions. *Numerische Mathematik*, 44: 153–168, 1984.

Dryja:1988:MDD

[Dry88] Maksymilian Dryja. A method of domain decomposition for 3-D finite element problems. In Roland Glowinski, Gene H. Golub, Gérard A. Meurant, and Jacques Périaux, editors, *First International Symposium on Domain Decomposition Methods for Partial Differential Equations (Paris, 1987)*, pages 43–61. SIAM, Philadelphia, PA, USA, 1988.

Dryja:1989:ASA

[Dry89] Maksymilian Dryja. An additive Schwarz algorithm for two- and three-dimensional finite element elliptic problems. In Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Domain Decomposition Methods*. SIAM, Philadelphia, PA, USA, 1989.

Dryja:1991:SMP

[Dry91] Maksymilian Dryja. Substructuring methods for parabolic problems. In Roland Glowinski, Yuri A. Kuznetsov, Gérard A. Meurant, Jacques Périaux, and Olof Widlund, editors, *Fourth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1991.

DeValerio:1992:DDM

[DS92] M. De Valerio and M. Schäfer. Domain decomposition methods for the numerical solution of elliptic partial differential equations on array processors. In *Parallel computing '91 (London, 1991)*, volume 4 of *Adv. Parallel Comput.*, pages 167–173. North-Holland Publishing Co., Amsterdam, The Netherlands, 1992.

Dai:1995:DDM

[DS95a] Pei Liang Dai and Shu Min Shen. A domain decomposition method based on nonconforming finite elements. *Math. Numer. Sinica*, 17(1):78–91, 1995. ISSN 0254-7791.

Diaz:1995:DDS

[DS95b] J. C. Díaz and K. Shenoi. Domain decomposition and Schur complement approaches to coupling the well equations in reservoir simulation. *SIAM Journal on Scientific Computing*, 16(1):29–39, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Dai:1996:NDD

[DS96] Peiliang Dai and Shu Min

Shen. The nonconforming domain decomposition method for Stokes problems. *Numer. Math. J. Chinese Univ.*, 18(3): 255–266, 1996. ISSN 1000-081X.

Dahmen:1999:WMC

[DS99] Wolfgang Dahmen and Reinhold Schneider. Wavelets on manifolds I: Construction and domain decomposition. *SIAM journal on mathematical analysis*, 31(1):184–230, 1999. CODEN SJMAAH. ISSN 0036-1410 (print), 1095-7154 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/33345`.

Daoud:2002:FSA

[DS02] Daoud S. Daoud and D. S. Subasi. A fractional splitting algorithm for non-overlapping domain decomposition. *Lecture Notes in Computer Science*, 2329:324–334, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2329/23290324.htm; http://link.springer-ny.com/link/service/series/0558/papers/2329/23290324.pdf`.

Dimov:1994:ANM

[DSV94] I. T. Dimov, Bl. Sendov, and P. S. Vassilevski, editors. *Advances in numerical methods and applications*. World Scientific Publishing Co. Inc., River Edge, NJ, USA, 1994. ISBN 981-02-1926-1. Papers from the 3rd International Conference on Numerical Methods and Applications held in Sofia, August 21–26, 1994.

Dryja:1993:SAIa

[DSW93] Maksymilian Dryja, Barry F. Smith, and Olof B. Widlund. Schwarz analysis of iterative substructuring algorithms for elliptic problems in three dimensions. Technical report, Department of Computer Science, Courant Institute, 1993. In preparation.

DeRoeck:1991:ATL

[DT91] Yann-Hervé De Roeck and Patrick Le Tallec. Analysis and test of a local domain decomposition preconditioner. In Roland Glowinski, Yuri Kuznetsov, Gérard Meurant, Jacques Périaux, and Olof Widlund, editors, *Fourth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1991.

Dryja:2007:DDD

[DT07] Maksymilian Dryja and Xuemin Tu. A domain decomposition discretization of parabolic problems. *Numerische Mathematik*, 107(4):625–640, October 2007. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Duan:2009:NDD

[DTH09] Y. Duan, P. F. Tang, and T. Z. Huang. A novel domain decomposition method for highly oscillating partial differential equations. *Engineering Analysis with Boundary Elements*, 33(11):1284–1288, 2009. ISSN 0955-7997.

Du:2001:OBN

[Du01] Qiang Du. Optimization based nonoverlapping domain decomposition algorithms and their convergence. *SIAM Journal on Numerical Analysis*, 39(3):1056–1077, June 2001. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/38027`.

Duan:2006:MGM

[Dua06] Yong Duan. Meshless Galerkin method using radial basis functions based on domain decomposition. *Applied Mathematics and Computation*, 179 (2):750–762, August 15, 2006. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Dubois:2001:PRP

[Dub01] François Dubois. Partial Riemann problem, boundary conditions, and gas dynamics. In *Absorbing boundaries and layers, domain decomposition methods*, pages 16–77. Nova Sci. Publ., Huntington, NY, USA, 2001.

Dostal:1996:NNT

[DV96] Zdeněk Dostál and Vít Vondrák. Neumann-Neumann type domain decomposition for the solution of contact problem with Coulomb friction. In *Proceedings of the Prague Mathematical Conference 1996*, pages 83–88. Icaris, Prague, 1996.

DiasDAlmeida:1997:PNL

[DV97] F. Dias D'Almeida and P. B. Vasconcelos. Preconditioners for nonsymmetric linear systems in domain decomposition applied to a coupled discretization of Navier–Stokes equations. *Lecture Notes in Computer Science*, 1215:295–??, 1997. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Dobrev:2001:LRN

[DV01] Veselin Dobrev and Panayot Vassilevski. Local refinement in non-overlapping domain decomposition. In *Numerical analysis and its applications (Rousse, 2000)*, volume 1988 of *Lecture Notes in Comput. Sci.*, pages 253–264. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001.

Dryja:1987:AVS

[DW87] Maksymilian Dryja and Olof B. Widlund. An additive variant of the Schwarz alternating method for the case of many subregions. Technical

Report 339, also Ultracomputer Note 131, Department of Computer Science, Courant Institute, 1987.

Dryja:1989:OAI

[DW89a] Maksymilian Dryja and Olof B. Widlund. On the optimality of an additive iterative refinement method. In *Proceedings of the Fourth Copper Mountain Conference on Multigrid Methods*, pages 161–170. SIAM, Philadelphia, PA, USA, 1989.

Dryja:1989:SDD

[DW89b] Maksymilian Dryja and Olof B. Widlund. Some domain decomposition algorithms for elliptic problems. In Linda Hayes and David Kincaid, editors, *Iterative Methods for Large Linear Systems*, pages 273–291. Academic Press, New York, NY, USA, 1989. Proceeding of the Conference on Iterative Methods for Large Linear Systems held in Austin, Texas, October 19–21, 1988, to celebrate the sixty-fifth birthday of David M. Young, Jr.

Dryja:1990:TUT

[DW90] Maksymilian Dryja and Olof B. Widlund. Towards a unified theory of domain decomposition algorithms for elliptic problems. In Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Third International Symposium on Domain Decomposition Methods for Partial Differential Equations, held in Houston, Texas, March 20-22, 1989*. SIAM, Philadelphia, PA, USA, 1990.

Dryja:1991:MAM

[DW91] Maksymilian Dryja and Olof B. Widlund. Multilevel additive methods for elliptic finite element problems. In Wolfgang Hackbusch, editor, *Parallel Algorithms for Partial Differential Equations, Proceedings of the Sixth GAMM-Seminar, Kiel, January 19–21, 1990*, volume 31 of *Notes Numer. Fluid Mech.*, pages 58–69. Vieweg & Son, Braunschweig, Germany, 1991.

Dryja:1992:ASM

[DW92a] Maksymilian Dryja and Olof B. Widlund. Additive Schwarz methods for elliptic finite element problems in three dimensions. In Tony F. Chan, David E. Keyes, Gérard A. Meurant, Jeffrey S. Scroggs, and Robert G. Voigt, editors, *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1992.

Dryja:1992:DDA

[DW92b] Maksymilian Dryja and Olof B. Widlund. Domain decomposition algorithms with small overlap. Technical Report 606, Department of Computer Science, Courant Institute, May

1992. To appear in SIAM J. Sci. Stat. Comput.

Douglas:1993:NFM

[DW93a] Jim Douglas, Jr. and Jun Ping Wang. A new family of mixed finite element spaces over rectangles. *Mat. Apl. Comput.*, 12 (3):183–197, 1993. ISSN 0101-8205.

Dryja:1993:SMN

[DW93b] Maksymilian Dryja and Olof B. Widlund. Schwarz methods of Neumann–Neumann type for three-dimensional elliptic finite element problems. Technical Report 626, Department of Computer Science, Courant Institute, March 1993. Submitted to Comm. Pure Appl. Math.

Dryja:1993:SRR

[DW93c] Maksymilian Dryja and Olof B. Widlund. Some recent results on Schwarz type domain decomposition algorithms. In Alfio Quarteroni, editor, *Sixth Conference on Domain Decomposition Methods for Partial Differential Equations, held in Como, Italy, June 15–19,1992*. AMS, Providence, RI, USA, 1993. To appear.

Dawson:1994:TGM

[DW94a] Clint N. Dawson and Mary F. Wheeler. Two-grid methods for mixed finite element approximations of nonlinear parabolic equations. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 191–203. AMS, Providence, RI, USA, 1994.

Dongarra:1994:PSC

[DW94b] Jack Dongarra and Jerzy Wasniewski, editors. *Parallel scientific computing: First International Workshop, PARA '94, Lyngby, Denmark, June 20–23, 1994: proceedings*, volume 879 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1994. ISBN 3-540-58712-8 (Berlin), 0-387-58712-8 (New York). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.58 .P35 1994. DM104.00.

Dryja:1994:DDA

[DW94c] Maksymilian Dryja and Olof B. Widlund. Domain decomposition algorithms with small overlap. *SIAM Journal on Scientific Computing*, 15(3): 604–620, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).

Dryja:2003:GFD

[DW03] M. Dryja and O. B. Widlund. A generalized FETI-DP method for a mortar discretization of elliptic problems. In *Domain decomposition methods in science and*

engineering, pages 27–38 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Dohrmann:2010:HDD

[DW10] Clark R. Dohrmann and Olof B. Widlund. Hybrid domain decomposition algorithms for compressible and almost incompressible elasticity. *International Journal for Numerical Methods in Engineering*, 82(2):157–183, 2010. CODEN IJNMBH. ISSN 0029-5981.

Douglas:1996:NEN

[DY96] Jim Douglas, Jr. and Daoqi Yang. Numerical experiments for a nonoverlapping domain decomposition method for partial differential equations. In *Numerical analysis*, pages 85–97. World Sci. Publ., River Edge, NJ, 1996.

Du:2002:DDM

[DY02] Q. Du and D. Yu. A domain decomposition method based on natural boundary reduction for nonlinear time-dependent exterior wave problems. *Computing*, 68(2):111–129, 2002. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://link.springer.de/link/service/journals/00607/bibs/2068002/20680111.htm`; `http://link.springer.de/link/service/journals/00607/papers/2068002/20680111.pdf`.

Du:2004:NOD

[DZ04] Qikui Du and Mingxin Zhang. A non-overlapping domain decomposition algorithm based on the natural boundary reduction for wave equations in an unbounded domain. *Numer. Math. J. Chinese Univ. (English Ser.)*, 13(2):121–132, 2004. ISSN 1004-8979 (print), 2079-7338 (electronic).

Everaars:1996:CDP

[EA96] C. T. H. Everaars and F. Arbab. Coordination of distributed/parallel multiple-grid domain decomposition. *Lecture Notes in Computer Science*, 1117:131–??, 1996. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Evans:1999:CGA

[EB99] D. J. Evans and Zhong-Zhi Bai. On the convergence of the generalized asynchronous multisplitting block two-stage relaxation methods for the large sparse systems of mildly nonlinear equations. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 214–222 (electronic). DDM.org, Augsburg, 1999.

Eikemo:1997:DDM

[EE97a] Merete S. Eikemo and Magne S. Espedal. Domain decomposition methods for a three dimensional extrusion model. In

Domain decomposition methods in sciences and engineering (Beijing, 1995), pages 469–476. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Ersland:1997:DDM

[EE97b] Brit Gunn Ersland and Magne S. Espedal. A domain decomposition method for heterogeneous reservoir flow. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 477–484. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Eisenstat:1983:VIM

[EES83] Stanley C. Eisenstat, Howard C. Elman, and Martin H. Schultz. Variational iterative methods for nonsymmetric systems of linear equations. *SIAM Journal on Numerical Analysis*, 20 (2):345–357, April 1983. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Ernst:1994:DDA

[EG94] Oliver Ernst and Gene H. Golub. A domain decomposition approach to solving the Helmholtz equation with a radiation boundary condition. In Quarteroni et al. [QPKW94], pages 177–192. ISBN 0-8218-5158-6. LCCN QA402.2 .I55 1992.

Elleithy:2009:ADD

[EG09] Wael Elleithy and Richards Grzhibovskis. An adaptive domain decomposition coupled finite element–boundary element method for solving problems in elasto-plasticity. *International Journal for Numerical Methods in Engineering*, 79 (8):1019–1040, 2009. CODEN IJNMBH. ISSN 0029-5981.

Egorov:2000:IDD

[Ego00] A. A. Egorov. On an iterative domain decomposition method for solving problems of mathematical physics. III. *Differ. Uravn.*, 36(5):703–708, 720, 2000. ISSN 0374-0641.

Engelmann:2000:AFE

[EHI+00] B. Engelmann, R. H. W. Hoppe, Y. Iliash, Y. A. Kuznetsov, Y. Vassilevski, and B. Wohlmuth. Adaptive finite element methods for domain decomposition on nonmatching grids. In *Parallel solution of partial differential equations (Minneapolis, MN, 1997)*, volume 120 of *IMA Vol. Math. Appl.*, pages 57–83. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000.

Evans:1992:PC

[EJL92] D. J. Evans, G. R. Joubert, and H. Liddell, editors. *Parallel computing '91*, volume 4 of *Advances in Parallel Computing*. North-Holland Publishing

Co., Amsterdam, The Netherlands, 1992. ISBN 0-444-89212-5.

Ewing:1994:APP

[EL94] R. E. Ewing and R. D. Lazarov. Approximation of parabolic problems on grids locally refined in time and space. *Applied Numerical Mathematics: Transactions of IMACS*, 14(1–3):199–211, April 14, 1994. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/apnum/cas_sub/browse/browse.cgi?year=1994&volume=14&issue=1-3&aid=454`. Proceedings of the Third ARO Workshop on Adaptive Methods for Partial Differential Equations (Troy, NY, 1992).

Ewing:1999:DDC

[ELLL99] Richard E. Ewing, Raytcho D. Lazarov, Tao Lin, and Yanping Lin. Domain decomposition capabilities for the mortar finite volume element methods. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 223–230 (electronic). DDM.org, Augsburg, 1999.

Ewing:1993:DDT

[ELPV93] Richard E. Ewing, Raytcho D. Lazarov, Joseph E. Pasciak, and Panayot S. Vassilevski. Domain decomposition type iterative techniques for parabolic problems on locally refined grids. *SIAM Journal on Numerical Analysis*, 30(6):1537–1557, December 1993. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Ewing:1988:LRT

[ELV88] R. E. Ewing, R. D. Lazarov, and P. S. Vassilevski. Local refinement techniques for elliptic problems on cell-centered grids. Technical report, University of Wyoming, 1988.

Engblom:2009:PTS

[Eng09] Stefan Engblom. Parallel in time simulation of multiscale stochastic chemical kinetics. *Multiscale Model. Simul.*, 8(1):46–68, 2009. ISSN 1540-3459 (print), 1540-3467 (electronic).

Evgrafov:2008:LSP

[ERMD08] Anton Evgrafov, Cory J. Rupp, Kurt Maute, and Martin L. Dunn. Large-scale parallel topology optimization using a dual-primal substructuring solver. *Struct. Multidiscip. Optim.*, 36(4):329–345, 2008. ISSN 1615-147X.

Egeciouglu:1996:DDP

[ES96a] O. Egeciouglu and A. Srinivasan. Domain decomposition for particle methods on the sphere. *Lecture Notes in Computer Science*, 1117:119–??, 1996. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Eisenhauer:1996:DAP

[ES96b] Greg Eisenhauer and Karsten Schwan. Design and analysis of a parallel molecular dynamics application. *Journal of Parallel and Distributed Computing*, 35(1):76–90, May 25, 1996. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL `http://www.idealibrary.com/links/doi/10.1006/jpdc.1996.0070/production; http://www.idealibrary.com/links/doi/10.1006/jpdc.1996.0070/production/pdf`.

Escaig:1994:PMD

[ETV94] Y. Escaig, G. Touzot, and M. Vayssade. Parallelization of a multilevel domain decomposition method. *Computing Systems in Engineering*, 5(3): 253–263, June 1994. CODEN COSEEO. ISSN 0956-0521.

Espedal:1998:HND

[ETY98] Magne S. Espedal, Xue-Cheng Tai, and Ningning Yan. A hybrid nonoverlapping domain decomposition scheme for advection dominated advection-diffusion problems. *Numerical Algorithms*, 18(3–4): 321–336, September 1998. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://ipsapp007.kluweronline.com/content/getfile/5058/15/6/abstract.htm; http://ipsapp007.kluweronline.com/content/getfile/5058/15/6/fulltext.pdf`.

Evans:1994:PIM

[Eva94] David J. Evans, editor. *Preconditioned iterative methods*, volume 4 of *Topics in Computer Mathematics*. Gordon and Breach Science Publishers, Lausanne, Switzerland, 1994. ISBN 2-88124-956-6. xii + 491 pp.

Ewing:1991:ASA

[EW91] Richard E. Ewing and Junping Wang. Analysis of the Schwarz algorithm for mixed finite element methods. Technical report, University of Wyoming, 1991.

Ewing:1989:DDT

[Ewi89a] Richard E. Ewing. Domain decomposition techniques for efficient adaptive local grid refinement. In Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Domain Decomposition Methods*. SIAM, Philadelphia, PA, USA, 1989.

Ewing:1989:PCG

[Ewi89b] Richard E. Ewing. Preconditioned conjugate gradient methods for large-scale fluid flow applications. *BIT (Nordisk tidskrift for informationsbehandling)*, 29(4):850–866, 1989. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Ewing:1991:ADD

[Ewi91] Richard E. Ewing. Application of domain decomposition techniques in large-scale fluid flow problems. *Applied Numerical Mathematics: Transactions of IMACS*, 8(4–5):375–388, November 1991. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Engquist:1998:ABCa

[EZ98a] Bjorn Engquist and Hong-Kai Zhao. Absorbing boundary conditions for domain decomposition. In *IUTAM Symposium on Computational Methods for Unbounded Domains (Boulder, CO, 1997)*, volume 49 of *Fluid Mech. Appl.*, pages 315–324. Kluwer Academic Publishers, Norwell, MA, USA, and Dordrecht, The Netherlands, 1998.

Engquist:1998:ABCb

[EZ98b] Bjorn Engquist and Hong-Kai Zhao. Absorbing boundary conditions for domain decomposition. *Applied Numerical Mathematics: Transactions of IMACS*, 27(4):341–365, August 15, 1998. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.com/cas/tree/store/apnum/sub/1998/27/4/885.pdf`.

Egorov:1984:CRG

[EZK84] A. V. Egorov, E. P. Zhidkov, and B. N. Khoromskiĭ. *Chislennoe reshenie granichnykh integralnykh uravnenii dlya operatora Laplasa na poverkhnosti kuba. Chast 2.* Soobshcheniya Ob″edinennogo Instituta Yadernykh Issledovaniĭ. Dubna [Communications of the Joint Institute for Nuclear Research. Dubna], R11-84-596. Joint Inst. Nuclear Res., Dubna, USSR, 1984. 12 pp. With an English summary.

Falletta:2003:AWM

[Fal03] S. Falletta. An adaptive p-wavelet method in a domain decomposition framework. In *Numerical mathematics and advanced applications*, pages 701–712. Springer Italia, Milan, 2003.

Farhat:1994:TDD

[FC94] Charbel Farhat and Po-Shu Chen. Tailoring domain decomposition methods for efficient parallel coarse grid solution and for systems with many right-hand sides. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 401–406. AMS, Providence, RI, USA, 1994.

Feistauer:2004:NMA

[FDKN04] M. Feistauer, V. Dolejší, P. Knobloch, and K. Najzar, editors. *Numerical mathematics and advanced applications*. Springer-Verlag, Berlin,

Germany / Heidelberg, Germany / London, UK / etc., 2004. ISBN 3-540-21460-7.

Friese:1999:MMC

[FDS99] Tilmann Friese, Peter Deuflhard, and Frank Schmidt. A multigrid method for the complex Helmholtz eigenvalue problem. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 18–26 (electronic). DDM.org, Augsburg, 1999.

Feng:1983:FEM

[Fen83] Kang Feng. Finite element method and natural boundary reduction. In *Proceedings of the International Congress of Mathematicians*. ????, Warsaw, Poland, 1983.

Feng:1998:ADD

[Fen98] Xiaobing Feng. Analysis of a domain decomposition method for the nearly elastic wave equations based on mixed finite element methods. *IMA Journal of Numerical Analysis*, 18(2):229–250, April 1998. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL `http://www3.oup.co.uk/imanum/hdb/Volume_18/Issue_02/180229.sgm.abs.html; http://www3.oup.co.uk/imanum/hdb/Volume_18/Issue_02/pdf/180229.pdf`.

Feng:2000:AFE

[Fen00] Xiaobing Feng. Analysis of finite element methods and domain decomposition algorithms for a fluid-solid interaction problem. *SIAM Journal on Numerical Analysis*, 38(4):1312–1336, August 2000. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/36152`.

Feng:2007:SDH

[Fen07] Shu Ju Feng. Solving discrete HJB equations by domain decomposition methods. *Math. Theory Appl. (Changsha)*, 27 (3):38–41, 2007. ISSN 1006-8074.

Faille:2002:NFM

[FFN+02] Isabelle Faille, Eric Flauraud, Frédéric Nataf, Sylvie Pégaz-Fiornet, Frédéric Schneider, and Françoise Willien. A new fault model in geological basin modelling. Application of finite volume scheme and domain decomposition methods. In *Finite volumes for complex applications, III (Porquerolles, 2002)*, pages 529–536. Hermes Sci. Publ., Paris, 2002.

Fujita:1998:RCI

[FFS98] Hiroshi Fujita, Makoto Fukuhara, and Norikazu Saito. On the rate of convergence of iterations in the domain decomposition method. In *Proceedings of Third China–Japan*

Seminar on Numerical Mathematics (Dalian, 1997), pages 30–43. Science Press, Beijing, PRC, 1998.

Fernandez:2008:DDB

[FGGV08] Miguel Ángel Fernández, Jean-Frédéric Gerbeau, Antoine Gloria, and Marina Vidrascu. Domain decomposition based Newton methods for fluid-structure interaction problems. In *CANUM 2006—Congrès National d'Analyse Numérique*, volume 22 of *ESAIM Proc.*, pages 67–82. EDP Sci., Les Ulis, 2008.

Frank:1990:EEP

[FGM90] G. Frank, E. J. (Efstratios J.) Gallopoulos, and Ulrike Meier. Experiments with elliptic problem solvers on the Cedar multicluster. Technical Report CSRD 902, University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, March 1990. 6 pp.

Freund:1991:ISL

[FGN91] R. Freund, G. H. Golub, and N. Nachtigal. *Iterative Solution of Linear Systems*, pages 57–100. Acta Numerica 1992. Cambridge University Press, Cambridge, UK, 1991.

Fornasari:1997:DDT

[FGRS97] N. Fornasari, G. Gazzaniga, S. Rovida, and G. Sacchi. Domain decomposition techniques: Analysis of a parallel implementation on HP-Convex exemplar systems. *Lecture Notes in Computer Science*, 1225:1000–??, 1997. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Fischer:2005:PTS

[FHM05] Paul F. Fischer, Frédéric Hecht, and Yvon Maday. A parareal in time semi-implicit approximation of the Navier–Stokes equations. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 433–440. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Fritz:2004:CMN

[FHW04] A. Fritz, S. Hüeber, and B. I. Wohlmuth. A comparison of mortar and Nitsche techniques for linear elasticity. *Calcolo*, 41(3):115–137, 2004. CODEN CALOBK. ISSN 0008-0624 (print), 1126-5434 (electronic).

Fournier:2000:AAH

[FL00] L. Fournier and S. Lanteri. Additive aspects of hybrid multigrid/domain decomposition solution of fluid flow problems on parallel computers. In Dick et al. [DRV00], pages 115–121. ISBN 3-540-67157-9. ISSN 1439-7358. LCCN QA377 .E94 1999.

Farhat:2005:IDD

[FL05] Charbel Farhat and Jing Li. An iterative domain decomposition method for the solution of a class of indefinite problems in computational structural dynamics. *Applied Numerical Mathematics: Transactions of IMACS*, 54(2):150–166, July 2005. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Farhat:2000:SDP

[FLP00] Charbel Farhat, Michael Lesoinne, and Kendall Pierson. A scalable dual-primal domain decomposition method. *Numerical Linear Algebra with Applications*, 7(7–8):687–714, October/December 2000. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic). URL `http://www3.interscience.wiley.com/cgi-bin/abstract/73505483/START; http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=73505483&PLACEBO=IE.pdf`. Preconditioning techniques for large sparse matrix problems in industrial applications (Minneapolis, MN, 1999).

Falcone:1994:SAH

[FLS94] Maurizio Falcone, Piero Lanucara, and Alessandra Seghini. A splitting algorithm for Hamilton–Jacobi–Bellman equations. *Applied Numerical Mathematics: Transactions of IMACS*, 15(2):207–218, September 13, 1994. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/apnum/cas_sub/browse/browse.cgi?year=1994&volume=15&issue=2&aid=493`. Innovative methods in numerical analysis (Bressanone, 1992).

Furuyama:1999:SDD

[FM99] S. Furuyama and T. Matsuzawa. A suitable domain decomposition for the adaptive mesh refinement method. *Lecture Notes in Computer Science*, 1615:363–??, 1999. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Farhat:2000:TLD

[FML00] Charbel Farhat, Antonini Macedo, and Michel Lesoinne. A two-level domain decomposition method for the iterative solution of high frequency exterior Helmholtz problems. *Numerische Mathematik*, 85(2):283–308, April 2000. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer-ny.com/link/service/journals/00211/bibs/0085002/00850283.htm; http://link.springer-ny.com/link/service/journals/00211/papers/0085002/00850283.pdf`.

Fabre:1998:CPD

[FMP+98] Caroline Fabre, Fulbert Mignot, Jean-Pierre Puel, Marius Tucsnak, and Enrique Zuazua, editors. *Control and partial differential equations*, volume 4 of *ESAIM Proceedings*. Société de Mathématiques Appliquées et Industrielles, Paris, France, 1998. Papers from the conference held in Marseille-Luminy, June 16–20, 1997.

Farhat:1999:FHS

[FMT99] Charbel Farhat, Antonini Macedo, and Radek Tezaur. FETI-H: a scalable domain decomposition method for high frequency exterior Helmholtz problems. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 231–241 (electronic). DDM.org, Augsburg, 1999.

Flemisch:2004:NDT

[FMW04] Bernd Flemisch, Michael Mair, and Barbara Wohlmuth. Nonconforming discretization techniques for overlapping domain decompositions. In *Numerical mathematics and advanced applications*, pages 316–325. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2004.

Frommer:2002:ACT

[FNS02] A. Frommer, R. Nabben, and D. B. Szyld. An algebraic convergence theory for restricted additive and multiplicative Schwarz methods. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 371–377. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Fornasier:2007:DDM

[For07] Massimo Fornasier. Domain decomposition methods for linear inverse problems with sparsity constraints. *Inverse Problems*, 23(6):2505–2526, 2007. CODEN INPEEY. ISSN 0266-5611.

Foster:1996:CPP

[Fos96] Ian Foster. Compositional parallel programming languages. *ACM Transactions on Programming Languages and Systems*, 18(4):454–476, July 1996. CODEN ATPSDT. ISSN 0164-0925 (print), 1558-4593 (electronic). URL `http://www.acm.org/pubs/toc/Abstracts/toplas/233565.html`.

Funaro:1988:IPI

[FQZ88] Daniele Funaro, Alfio Quarteroni, and Paola Zanolli. An iterative procedure with interface relaxation for domain decomposition methods. *SIAM Journal on Numerical Analysis*, 25(6):1213–1236, December 1988. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Farhat:1992:UDD

[FR92] Charbel Farhat and François-Xavier Roux. An unconventional domain decomposition method for an efficient parallel solution of large-scale finite element systems. *SIAM Journal on Scientific and Statistical Computing*, 13(1):379–396, January 1992. CODEN SIJCD4. ISSN 0196-5204.

Frank:1990:ECM

[Fra90] George N. Frank. Experiments on the Cedar multicluster with parallel block cyclic reduction and an application to domain decomposition methods. Thesis (m.s.), University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, November 1990. vii + 69 pp.

Floros:1995:CED

[FRC+95] N. Floros, J. S. Reeve, J. Clinckemaillie, S. Vlachoutsis, and G. Lonsdale. Comparative efficiencies of domain decompositions. *Parallel Computing*, 21(11):1823–1835, November 29, 1995. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/parco/cas_sub/browse/browse.cgi?year=1995&volume=21&issue=11&aid=1010`.

Ferreira:1996:PAI

[FRSY96] A. Ferreira, J. Rolim, Y. Saad, and T. Yang, editors. *Parallel algorithms for irregularly structured problems*, volume 1117 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1996. ISBN 3-540-61549-0.

Formaggia:2006:DDT

[FSS06] Luca Formaggia, Marzio Sala, and Fausto Saleri. Domain decomposition techniques. In *Numerical solution of partial differential equations on parallel computers*, volume 51 of *Lect. Notes Comput. Sci. Eng.*, pages 135–163, 469–473. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006.

Fujima:1998:DDU

[Fuj98] Shoichi Fujima. A domain-decomposition/upwind finite element approximation for the Navier–Stokes equations. *Sūrikaisekikenkyūsho Kōkyūroku*, 1061(??):164–176, 1998. Nonlinear evolution equations and their applications (Japanese) (Kyoto, 1997).

Funaro:1988:DDM

[Fun88] Daniele Funaro. Domain decomposition methods for pseudospectral approximations. I. Second order equations in one

dimension. *Numerische Mathematik*, 52(3):329–344, March 1988. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Freistuhler:2001:HPT

[FW01] Heinrich Freistühler and Gerald Warnecke, editors. *Hyperbolic problems: theory, numerics, applications. Vol I, II*, volume 141 of *International Series of Numerical Mathematics, 140*. Birkhäuser Verlag, Basel, Switzerland, 2001. ISBN 3-7643-6711-3.

Feng:2004:PEE

[FX04] Xiaobing Feng and Zhenghui Xie. A priori error estimates for a coupled finite element method and mixed finite element method for a fluid-solid interaction problem. *IMA Journal of Numerical Analysis*, 24(4):671–698, 2004. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).

Ghosh:2009:FPC

[GAF09] Debraj Ghosh, Philip Avery, and Charbel Farhat. An FETI-preconditioned conjugate gradient method for large-scale stochastic finite element problems. *International Journal for Numerical Methods in Engineering*, 80(6–7): 914–931, 2009. CODEN IJNMBH. ISSN 0029-5981.

Gaier:1995:CMT

[Gai95] D. Gaier. Conformal modules and their computation. In *Computational methods and function theory 1994 (Penang)*, volume 5 of *Ser. Approx. Decompos.*, pages 159–171. World Sci. Publ., River Edge, NJ, 1995.

Gander:2008:SMC

[Gan08] Martin J. Gander. Schwarz methods over the course of time. *Electronic Transactions on Numerical Analysis*, 31: 228–255, 2008. ISSN 1068-9613 (print), 1097-4067 (electronic).

Garbey:1994:DDS

[Gar94] Marc Garbey. Domain decomposition to solve transition layers and asymptotics. *SIAM Journal on Scientific Computing*, 15(4):866–891, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gastaldi:1992:DDM

[Gas92] Lucia Gastaldi. A domain decomposition method associated with the streamline diffusion FEM for linear hyperbolic systems. *Applied Numerical Mathematics: Transactions of IMACS*, 10(5):357–380, October 1992. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Gastaldi:1993:MDT

[Gas93a] Fabio Gastaldi. A multidomain decomposition for the transport equation. In *Variational and free boundary problems*, volume 53 of *IMA Vol. Math. Appl.*, pages 87–109. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1993.

Gastaldi:1993:DDB

[Gas93b] Fabio Gastaldi. On the domain decomposition for boundary value problems. In *Boundary value problems for partial differential equations and applications*, volume 29 of *RMA Res. Notes Appl. Math.*, pages 367–372. Masson Editeur, Masson, France, 1993.

Gonzalez-Casanova:2009:NAD

[GCMGRG09] Pedro González-Casanova, José Antonio Muñoz-Gómez, and Gustavo Rodríguez-Gómez. Node adaptive domain decomposition method by radial basis functions. *Numerical Methods for Partial Differential Equations*, 25(6):1482–1501, 2009. CODEN NMPDEB. ISSN 0749-159X.

Goovaerts:1991:ESD

[GCP91] D. Goovaerts, T. F. Chan, and Robert Piessens. The eigenvalue spectrum of domain decomposed preconditioners. *Applied Numerical Mathematics: Transactions of IMACS*, 8(4–5):389–410, 1991. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Glowinski:1983:DDM

[GDP83] R. Glowinski, Q. V. Dinh, and J. Periaux. Domain decomposition methods for nonlinear problems in fluid dynamics. *Computer Methods in Applied Mechanics and Engineering*, 40(1):27–109, 1983. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Geers:1998:ISC

[Gee98] Thomas L. Geers, editor. *IUTAM Symposium on Computational Methods for Unbounded Domains*, volume 49 of *Fluid Mechanics and its Applications*. Kluwer Academic Publishers, Norwell, MA, USA, and Dordrecht, The Netherlands, 1998. ISBN 0-7923-5266-1.

Garrido:2005:CAT

[GEF05] Izaskun Garrido, Magne S. Espedal, and Gunnar E. Fladmark. A convergent algorithm for time parallelization applied to reservoir simulation. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 469–476. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

George:1973:NDR

[Geo73] Alan George. Nested dissection of a regular finite element mesh. *SIAM Journal on Numerical Analysis*, 10(2): 345–363, April 1973. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Georgiev:1996:IAO

[Geo96] Krassimir Georgiev. Implementation of the additive overlapping domain decomposition method to 3-D elasticity problems. *Math. Balkanica (N.S.)*, 10(4):419–433, 1996. ISSN 0205-3217.

Georgiev:1999:PDD

[Geo99] Krassimir Georgiev. Parallel domain decomposition approach for 3D boundary value problems and an implementation on parallel computers. In *Recent advances in numerical methods and applications, II (Sofia, 1998)*, pages 473–481. World Sci. Publ., River Edge, NJ, 1999.

Garcia-Espinosa:2008:ONU

[GEVO08] Julio Garcia-Espinosa, Aleix Valls, and Eugenio Oñate. ODDLS: a new unstructured mesh finite element method for the analysis of free surface flow problems. *International Journal for Numerical Methods in Engineering*, 76(9):1297–1327, 2008. CODEN IJNMBH. ISSN 0029-5981.

Gastaldi:1994:DDT

[GG94] Fabio Gastaldi and Lucia Gastaldi. On a domain decomposition for the transport equation: theory and finite element approximation. *IMA Journal of Numerical Analysis*, 14(1):111–135, 1994. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).

Gander:2003:NOO

[GG03] M. J. Gander and G. H. Golub. A non-overlapping optimized Schwarz method which converges with arbitrarily weak dependence on h. In *Domain decomposition methods in science and engineering*, pages 281–288 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Gerardo-Giorda:2008:BWR

[GG08] L. Gerardo-Giorda. Balancing waveform relaxation for age-structured populations in a multilayer environment. *J. Numer. Math.*, 16(4):281–306, 2008. ISSN 1570-2820.

Girault:2004:DDM

[GGL04] V. Girault, R. Glowinski, and H. López. A domain decomposition and mixed method for a linear parabolic boundary value problem. *IMA Journal of Numerical Analysis*, 24(3): 491–520, July 2004. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL `http://www3.oup.co.uk/imanum/hdb/Volume_24/`

Issue_03/240491.sgm.abs.html; http://www3.oup.co.uk/imanum/hdb/Volume_24/Issue_03/pdf/240491.pdf.

Gaiffe:2000:MDD

[GGM00] Stéphanie Gaiffe, Roland Glowinski, and Roland Masson. Méthodes de décomposition de domaine et d'opérateur pour les problèmes paraboliques. (French) [Domain- and operator-decomposition methods in parabolic problems]. *Comptes Rendus des Séances de l'Académie des Sciences. Série I. Mathématique*, 331(9):739–744, 2000. CODEN CASMEI. ISSN 0764-4442 (print), 1778-3577 (electronic).

Gaiffe:2002:DDS

[GGM02] Stéphanie Gaiffe, Roland Glowinski, and Roland Masson. Domain decomposition and splitting methods for Mortar mixed finite element approximations to parabolic equations. *Numerische Mathematik*, 93(1):53–75, November 2002. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Glowinski:1988:DDMa

[GGMP88a] Roland Glowinski, Gene H. Golub, Gérard A. Meurant, and Jacques Périaux, editors. *Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1988. Proceedings of the First International Symposium on Domain Decomposition Methods for Partial Differential Equations, Paris, France, January 1987.

Glowinski:1988:FIS

[GGMP88b] Roland Glowinski, Gene H. Golub, Gérard A. Meurant, and Jacques Périaux, editors. *First International Symposium on Domain Decomposition Methods for Partial Differential Equations: Proceedings of the First International Symposium on Domain Decomposition Methods for Partial Differential Equations, Ecole Nationale des Ponts et Chaussées, Paris, France, January 7–9, 1987*. SIAM, Philadelphia, PA, USA, 1988. ISBN 0-89871-220-3. LCCN QA402.2 .I571 1987. URL http://www.jstor.org/stable/2008749.

Gastaldi:1996:ADD

[GGQ96] F. Gastaldi, L. Gastaldi, and A. Quarteroni. Adaptive domain decomposition methods for advection dominated equations. *East-West Journal of Numerical Mathematics*, 4(3): 165–206, 1996. CODEN EJNMEA. ISSN 0928-0200.

Gottlieb:1989:PPD

[GH89] David Gottlieb and Richard S. Hirsh. Parallel pseudospectral domain decomposition techniques. *Journal of Scientific Computing*, 4(4):309–325,

1989. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic).

Gaier:1990:MLQ

[GH90] D. Gaier and W. K. Hayman. Moduli of long quadrilaterals and thick ring domains. *Rendiconti di matematica e delle sue applicazioni (1981)*, 10(4): 809–834 (1991), 1990. CODEN RNMTAN. ISSN 1120-7183.

Gu:1994:DDM

[GH94a] Jin Sheng Gu and Xian Cheng Hu. Domain decomposition methods for solving elliptic problems with two nonoverlapping substructures. *Math. Numer. Sinica*, 16(4):432–447, 1994. ISSN 0254-7791.

Gu:1994:ODD

[GH94b] Jin Sheng Gu and Xian Cheng Hu. Overlapping domain decomposition methods with multiple subdomains for elliptic problems. *J. Tsinghua Univ.*, 34(6):50–57, 1994. CODEN QDXKE8. ISSN 1000-0054.

Gu:1994:PSA

[GH94c] Jin Sheng Gu and Xian Cheng Hu. The parallel Schwarz alternating method for boundary-degenerate elliptic problems. *Numer. Math. J. Chinese Univ.*, 16(2):116–125, 1994. ISSN 1000-081X.

Gu:1995:ODD

[GH95] Jin Sheng Gu and Xian Cheng Hu. An overlapping domain decomposition method for nonselfadjoint elliptic problems discretized by Crouzeix–Raviart elements. *Math. Numer. Sinica*, 17(3):282–290, 1995. ISSN 0254-7791.

Gu:1997:SRD

[GH97] Jinsheng Gu and Xiancheng Hu. Some recent developments in domain decomposition methods with nonconforming finite elements. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 51–56. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Gunzburger:1998:FCO

[GH98] Max D. Gunzburger and L. Steven Hou, editors. *Flow control and optimization*. Gordon and Breach Science Publishers, Yverdon, Switzerland, 1998. CODEN IJCFEC. ISSN 1061-8562. 1–191 pp. Int. J. Comput. Fluid Dyn. **11** (1998), no. 1-2.

Gubitoso:2001:DBD

[GH01] Marco Dimas Gubitoso and Carlos Humes Jr. Delay behavior in domain decomposition applications. *Lecture Notes in Computer Science*, 1900:160–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349

(electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1900/19000160.htm; http://link.springer-ny.com/link/service/series/0558/papers/1900/19000160.pdf.

Guo:2003:GAL

[GH03] W. Guo and L. S. Hou. Generalizations and accelerations of Lions' nonoverlapping domain decomposition method for linear elliptic PDE. *SIAM Journal on Numerical Analysis*, 41(6):2056–2080, December 2003. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/40715.

Gustafsson:2000:IHO

[GHF00] Bertil Gustafsson and Lina Hemmingsson-Frändén. Implicit high-order difference methods and domain decomposition for hyperbolic problems. *Applied Numerical Mathematics: Transactions of IMACS*, 33(1–4):493–500, May 2000. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL http://www.elsevier.nl/gej-ng/29/17/21/61/27/78/abstract.html; http://www.elsevier.nl/gej-ng/29/17/21/61/27/78/article.pdf.

Gustafsson:2001:HOM

[GHF01] Bertil Gustafsson and Lina Hemmingsson-Frändén. High order methods and domain decomposition. In *Absorbing boundaries and layers, domain decomposition methods*, pages 341–347. Nova Sci. Publ., Huntington, NY, USA, 2001.

Gunzburger:2000:SEP

[GHL00] Max D. Gunzburger, Matthias Heinkenschloss, and Hyesuk Kwon Lee. Solution of elliptic partial differential equations by an optimization-based domain decomposition method. *Applied Mathematics and Computation*, 113(2–3):111–139, July 15, 2000. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL http://www.elsevier.nl/gej-ng/10/9/12/87/23/21/abstract.html; http://www.elsevier.nl/gej-ng/10/9/12/87/23/21/article.pdf.

Gander:2007:APS

[GHMR07] Martin J. Gander, Laurence Halpern, Frédéric Magoulès, and François-Xavier Roux. Analysis of patch substructuring methods. *Int. J. Appl. Math. Comput. Sci.*, 17(3):395–402, 2007. ISSN 1641-876X.

Gander:1999:OCO

[GHN99] M. J. Gander, L. Halpern, and

F. Nataf. Optimal convergence for overlapping and non-overlapping Schwarz waveform relaxation. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 27–36 (electronic). DDM.org, Augsburg, 1999.

Giraud:2010:UML

[GHP10] L. Giraud, A. Haidar, and S. Pralet. Using multiple levels of parallelism to enhance the performance of domain decomposition solvers. *Parallel Computing*, 36(5–6):285–296, June 2010. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Guermond:1993:SDE

[GHS93] J.-L. Guermond, S. Huberson, and W.-Z. Shen. Simulation of 2D external viscous flows by means of a domain decomposition method. *Journal of computational physics*, 108(2): 343–352, 1993. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Graham:1999:FIT

[GHS99] I. G. Graham, W. Hackbusch, and S. A. Sauter. Fast integration techniques in 3D boundary elements. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 37–48 (electronic). DDM.org, Augsburg, 1999.

Giles:2001:NRB

[Gil01] Michael B. Giles. Non-reflecting boundary conditions for Euler equation calculations. In *Absorbing boundaries and layers, domain decomposition methods*, pages 121–143. Nova Sci. Publ., Huntington, NY, USA, 2001.

Gong:2010:DDD

[GJS10] Rongfang Gong, Ke Jiang, and Lelin Sun. Dynamic domain decomposition method and its application on nonlinear problem. *Wuhan Univ. J. Nat. Sci.*, 15(1):16–20, 2010. CODEN WUNSFW. ISSN 1007-1202.

Gropp:1988:CPI

[GK88] William D. Gropp and David E. Keyes. Complexity of parallel implementation of domain decomposition techniques for elliptic partial differential equations. *SIAM Journal on Scientific and Statistical Computing*, 9(2):312–326, March 1988. CODEN SIJCD4. ISSN 0196-5204.

Gropp:1989:DDP

[GK89] William D. Gropp and David E. Keyes. Domain decomposition on parallel computers. *Impact Comput. Sci. Eng.*, 1:421–439, 1989.

Gropp:1991:PDD

[GK91] William D. Gropp and David E. Keyes. Parallel domain decomposition and the solution

of nonlinear systems of equations. In Roland Glowinski, Yuri A. Kuznetsov, Gérard A. Meurant, Jacques Périaux, and Olof Widlund, editors, *Fourth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1991.

Gropp:1992:DDL

[GK92] William D. Gropp and David E. Keyes. Domain decomposition with local mesh refinement. *SIAM Journal on Scientific and Statistical Computing*, 13(4):967–993, July 1992. CODEN SIJCD4. ISSN 0196-5204.

Garbey:1997:HDD

[GK97] Marc Garbey and Hans G. Kaper. Heterogeneous domain decomposition for singularly perturbed elliptic boundary value problems. *SIAM Journal on Numerical Analysis*, 34(4):1513–1544, August 1997. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/28558`.

Giladi:2002:STD

[GK02] Eldar Giladi and Herbert B. Keller. Space-time domain decomposition for parabolic problems. *Numerische Mathematik*, 93(2):279–313, December 2002. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Geiser:2009:DDM

[GK09] Jürgen Geiser and Christos Kravvaritis. A domain decomposition method based on the iterative operator splitting method. *Applied Numerical Mathematics: Transactions of IMACS*, 59(3–4):608–623, March/April 2009. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Grasedyck:2009:DDB

[GKB09] Lars Grasedyck, Ronald Kriemann, and Sabine Le Borne. Domain decomposition based $H\mathcal{H}$-LU preconditioning. *Numerische Mathematik*, 112(4):565–600, June 2009. CODEN NUMMA7. ISSN ???? URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=112&issue=4&spage=565; http://www.springerlink.com/openurl.asp?genre=article&issn=????&volume=112&issue=4&spage=565`.

Graef:2009:PSM

[GKL+09] John Graef, Roy Koomullil, Hyeona Lim, Ratnasingham Shivaji, Bharat Soni, and Jianping Zhu, editors. *Proceedings of the Seventh Mississippi State–UAB Conference on Differential Equations and Computational Simulations*, volume 17 of *Electronic Journal of Differential Equations Conference*. Southwest Texas

State University, San Marcos, TX, USA, 2009. URL `http://ejde.math.txstate.edu/`. Held in Birmingham, AL, November 1–3, 2007.

Glowinski:1991:FIS

[GKM+91] Roland Glowinski, Yuri A. Kuznetsov, Gérard A. Meurant, Jacques Périaux, and Olof Widlund, editors. *Fourth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1991.

Garbey:2002:FSS

[GKR02] M. Garbey, H. G. Kaper, and N. Romanyukha. A fast solver for systems of reaction-diffusion equations. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 387–394. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Grama:1998:SPF

[GKS98] Ananth Grama, Vipin Kumar, and Ahmed Sameh. Scalable parallel formulations of the Barnes–Hut method for n-body simulations. *Parallel Computing*, 24(5–6):797–822, June 1, 1998. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cas/tree/store/parco/sub/1998/24/5-6/1288.pdf`.

Glowinski:1990:ADD

[GKW90] R. Glowinski, W. Kinton, and M. F. Wheeler. Acceleration of domain decomposition algorithms for mixed finite elements by multi-level methods. In Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Third International Symposium on Domain Decomposition Methods for Partial Differential Equations, held in Houston, Texas, March 20-22, 1989*. SIAM, Philadelphia, PA, USA, 1990.

George:1981:CSL

[GL81] Alan George and Joseph Liu. *Computer Solution of Large Sparse Positive Definite Systems*. Prentice-Hall, Englewood Cliffs, N.J., 1981. ISBN 0-13-165274-5. xii + 324 pp. LCCN QA188 .G46 1980.

Glowinski:1986:CMA

[GL86] R. Glowinski and J.-L. Lions, editors. *Computing methods in applied sciences and engineering. VII*. North-Holland Publishing Co., Amsterdam, The Netherlands, 1986. ISBN 0-444-70059-5.

Gallopoulos:1988:BID

[GL88] E. J. (Efstratios J.) Gallopoulos and Daeshik Lee. Boundary integral domain decomposition on hierarchical memory multiprocessors. Technical Report CSRD 752, University of Illinois at Urbana-Champaign, Center for Super-

computing Research and Development, Urbana, IL 61801, USA, 1988. 488–499 pp.

Glowinski:1990:CMA

[GL90] Roland Glowinski and Alain Lichnewsky, editors. *Computing methods in applied sciences and engineering*. SIAM, Philadelphia, PA, USA, 1990. ISBN 0-89871-264-5.

Gunzburger:2000:OBD

[GL00] Max D. Gunzburger and Hyesuk Kwon Lee. An optimization-based domain decomposition method for the Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 37(5):1455–1480, October 2000. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/33286`.

Greenbaum:1989:CLS

[GLC89a] Anne Greenbaum, Congming Li, and Han Zheng Chao. Comparison of linear system solvers applied to diffusion-type finite element equations. *Numerische Mathematik*, 56 (6):529–546, December 1989. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Greenbaum:1989:PPC

[GLC89b] Anne Greenbaum, Congming Li, and Han Zheng Chao. Parallelizing preconditioned conjugate gradient algorithms. *Computer Physics Communications*, 53(1–3):295–309, May 1989. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0010465589901677`.

Globisch:1995:APG

[Glo95] Gerhard Globisch. On an automatically parallel generation technique for tetrahedral meshes. *Parallel Computing*, 21(12):1979–1995, December 12, 1995. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/parco/cas_sub/browse/browse.cgi?year=1995&volume=21&issue=12&aid=1033`.

Glowinski:2006:DDM

[GLP+06] R. Glowinski, S. Lapin, J. Periaux, P. M. Jacquart, and H. Q. Chen. Domain decomposition methods for wave propagation in heterogeneous media. In *Numerical mathematics and advanced applications*, pages 1203–1211. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006.

Germain:1997:HCS

[GLPE97] C. Germain, J. Laminie, M. Pallud, and D. Etiemble. An HPF case study of a domain-decomposition based irregular application. *Lecture*

Notes in Computer Science, 1277:201–??, 1997. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Galanin:2007:FFS

[GLS07a] M. Galanin, S. Lazareva, and E. Savenkov. Fedorenko finite superelement method and its applications. *Computational Methods in Applied Mathematics*, 7(1):3–24, 2007. ISSN 1609-4840.

Graham:2007:DDM

[GLS07b] I. G. Graham, P. O. Lechner, and R. Scheichl. Domain decomposition for multiscale PDEs. *Numerische Mathematik*, 106(4):589–626, June 2007. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Glowinski:1989:PEI

[GLT89] R. Glowinski, B. Larrouturou, and P. Le Tallec, editors. *Proceedings of the Eighth International Conference on Computing Methods in Applied Sciences and Engineering*. Elsevier Science B.V., Amsterdam, The Netherlands, 1989. CODEN CMMECC. ISSN 0045-7825, 0374-2830. Held in Versailles, December 14–18, 1987, Comput. Methods Appl. Mech. Engrg. **75** (1989), no. 1-3.

Golub:1984:UPI

[GM84] Gene Golub and D. Mayers. The use of preconditioning over irregular regions. In R. Glowinski and J. L. Lions, editors, *Computing Methods in Applied Sciences and Engineering, VI*, pages 3–14. North-Holland Publishing Co., Amsterdam, The Netherlands, 1984. Proceedings of a conference held in Versailles, France, December 12-16,1983.

Georgiev:1991:DDM

[GM91] K. Georgiev and S. Margenov. On domain decomposition methods for problems with discontinuous coefficients. In *Computer arithmetic, scientific computation and mathematical modelling (Albena, 1990)*, volume 12 of *IMACS Ann. Comput. Appl. Math.*, pages 281–292. Baltzer, Basel, Switzerland, 1991.

Gatica:1998:NDD

[GM98] Gabriel N. Gatica and Mario E. Mellado. Nonoverlapping domain decomposition methods for linear and nonlinear exterior boundary value problems. In *Computational mechanics (Buenos Aires, 1998)*, pages CD–ROM file. Centro Internac. Métodos Numér. Ing., Barcelona, Spain, 1998.

Guo:2009:SDD

[GM09] Yu Kun Guo and Fu Ming Ma. Some domain decomposition methods employing the PML technique for the Helmholtz equation. *Numer. Math. J. Chinese Univ.*, 31(4):369–384, 2009. ISSN 1000-081X.

Gates:2008:AMD

[GMH08] Mark Gates, Karel Matouš, and Michael T. Heath. Asynchronous multi-domain variational integrators for nonlinear problems. *International Journal for Numerical Methods in Engineering*, 76(9): 1353–1378, 2008. CODEN IJNMBH. ISSN 0029-5981.

Glowinski:2008:PDE

[GN08] Roland Glowinski and Pekka Neittaanmäki, editors. *Partial differential equations*, volume 16 of *Computational Methods in Applied Sciences*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008. ISBN 1-4020-8757-8. xvi + 292 pp. Modeling and numerical simulation.

Garcia-Nocetti:2003:DAD

[GNHR+03] F. García-Nocetti, I. Herrera, E. Rubio, R. Yates, and L. Ochoa. The direct approach to domain decomposition methods. In *Domain decomposition methods in science and engineering*, pages 265–271 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Griebel:1995:ATA

[GO95] M. Griebel and P. Oswald. On the abstract theory of additive and multiplicative Schwarz algorithms. *Numerische Mathematik*, 70(2):163–180, April 1995. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.de/link/service/journals/00211/bibs/5070002/50700163.htm; http://science.springer.de/nmee/bibs/5070002/50700163.htm`.

Gamez:2007:PID

[GOD+07] B. Gámez, D. Ojeda, E. Divo, A. Kassab, and M. Cerrolaza. Parallelized iterative domain decomposition boundary element method for thermoelasticity. In *Boundary elements and other mesh reduction methods XXIX*, volume 44 of *WIT Trans. Model. Simul.*, pages 149–158. WIT Press, Southampton, UK, 2007.

Goldfeld:2003:BNN

[Gol03] P. Goldfeld. Balancing Neumann–Neumann for (in)compressible linear elasticity and (generalized) Stokes—parallel implementation. In *Domain decomposition methods in science and engineering*, pages 209–216 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Griebel:2005:PPU

[GOS05] Michael Griebel, Peter Oswald, and Marc Alexander Schweitzer. A particle-partition of unity method. VI. A p-robust multilevel solver. In *Meshfree methods for partial differential equations II*, volume 43 of *Lect. Notes Comput. Sci. Eng.*, pages 71–92. Springer-Verlag, Berlin,

Germany / Heidelberg, Germany / London, UK / etc., 2005.

Goyon:1999:MPC

[Goy99] O. Goyon. Multilevel parallel computations and domain decomposition. In *Recent advances in numerical methods and applications, II (Sofia, 1998)*, pages 324–331. World Sci. Publ., River Edge, NJ, 1999.

Glowinski:1979:NMF

[GP79] R. Glowinski and O. Pironneau. Numerical methods for the first biharmonic equation and for the two-dimensional Stokes problem. *SIAM Review*, 21(2):167–212, April 1979. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Glowinski:1985:FEL

[GP85] R. Glowinski and J. Périaux. Finite element, least squares and domain decomposition methods for the numerical solution of nonlinear problems in fluid dynamics. In *Numerical methods in fluid dynamics (Como, 1983)*, volume 1127 of *Lecture Notes in Math.*, pages 1–114. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1985.

Glowinski:1986:DMS

[GP86] Roland Glowinski and J. Périaux. Decomposition methods in scientific computing: application to fluid calculations. In *Innovative numerical methods in engineering (Atlanta, Ga., 1986)*, pages 1–15. Comput. Mech., Southampton, UK, 1986.

Glowinski:1987:NMN

[GP87] Roland Glowinski and Jacques F. Périaux. Numerical methods for nonlinear problem in fluid dynamics. In *Supercomputing*, pages 381–479. North-Holland Publishing Co., Amsterdam, The Netherlands, 1987.

Givoli:2001:OLA

[GP01] Dan Givoli and Igor Patlashenko. Optimal local absorbing boundary conditions for problems in infinite domains. In *Absorbing boundaries and layers, domain decomposition methods*, pages 219–241. Nova Sci. Publ., Huntington, NY, USA, 2001.

Glowinski:1994:OSD

[GPP94] Roland Glowinski, Tsorng-Whay Pan, and Jacques Périaux. A one shot domain decomposition/fictitious domain method for the Navier–Stokes equations. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 211–222. AMS, Providence, RI, USA, 1994.

Gruber:1989:PFI

[GPS89] R. Gruber, J. Périaux, and R. P. Shaw, editors. *Proceedings of the Fifth International Symposium on Numerical Methods in Engineering. Vol. 1, 2*. Computational Mechanics Publications, Southampton, UK, 1989. ISBN 1-85312-041-3. Held at the École Polytechnique Fédérale de Lausanne, Lausanne, September 11–15, 1989.

Glowinski:1997:DDM

[GPSW97] R. Glowinski, J. Périaux, Z.-C. Shi, and O. Widlund, editors. *Domain decomposition methods in sciences and engineering*. John Wiley and Sons, Ltd., New York, London, Sydney, 1997. ISBN 0-471-96560-X.

Gervasio:2000:SAN

[GQS00] P. Gervasio, A. Quarteroni, and F. Saleri. Spectral approximation of Navier–Stokes equations. In *Fundamental directions in mathematical fluid mechanics*, Adv. Math. Fluid Mech., pages 71–127. Birkhäuser Verlag, Basel, Switzerland, 2000.

Gosselet:2003:SRK

[GR03] P. Gosselet and C. Rey. On a selective reuse of Krylov subspaces in Newton–Krylov approaches for nonlinear elasticity. In *Domain decomposition methods in science and engineering*, pages 419–426 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Gosselet:2006:NOD

[GR06] Pierre Gosselet and Christian Rey. Non-overlapping domain decomposition methods in structural mechanics. *Arch. Comput. Methods Engrg.*, 13 (4):515–572, 2006. ISSN 1134-3060.

Grossmann:2007:NTP

[GR07] Christian Grossmann and Hans-Görg Roos. *Numerical treatment of partial differential equations*. Universitext. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2007. ISBN 3-540-71582-7. xii + 591 pp. Translated and revised from the 3rd (2005) German edition by Martin Stynes.

Gravvanis:2002:DDF

[Gra02] George A. Gravvanis. Domain decomposition–finite difference approximate inverse preconditioned schemes for solving fourth-order equations. *J. Math. Model. Algorithms*, 1 (3):181–192, 2002. ISSN 1570-1166.

Grisvard:1985:EPN

[Gri85] P. Grisvard. *Elliptic problems in nonsmooth domains*. Pitman Publishing, London, UK, 1985. ISBN 0-273-08647-2. xiv + 410 pp. LCCN QA379 .G74 1985.

Griebel:1994:DOM

[Gri94] M. Griebel. Domain-oriented multilevel methods. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 223–229. AMS, Providence, RI, USA, 1994.

Germain-Renaud:1999:JBC

[GRN99] Cécile Germain-Renaud and Vincent Néri. Java-based coupling for parallel predictive-adaptive domain decomposition. *Scientific Programming*, 7(2):185–189, ???? 1999. CODEN SCIPEV. ISSN 1058-9244 (print), 1875-919X (electronic). URL `http://iospress.metapress.com/app/home/contribution.asp%3Fwasp=f277qlrwwjr5m4vxjywv%26referrer=parent%26backto=issue%2C8%2C8%3Bjournal%2C7%2C9%3Blinkingpublicationresults%2C1%2C1`.

Gropp:1992:PCD

[Gro92] William D. Gropp. Parallel computing and domain decomposition. In Tony F. Chan, David E. Keyes, Gérard A. Meurant, Jeffrey S. Scroggs, and Robert G. Voigt, editors, *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1992.

Grote:2001:NBC

[Gro01] Marcus J. Grote. Nonreflecting boundary conditions. In *Absorbing boundaries and layers, domain decomposition methods*, pages 242–276. Nova Sci. Publ., Huntington, NY, USA, 2001.

Grunbaum:2001:NIP

[Grü01] F. Alberto Grünbaum. A nonlinear inverse problem inspired by three-dimensional diffuse tomography. *Inverse Problems*, 17(6):1907–1922, 2001. CODEN INPEEY. ISSN 0266-5611.

Girault:2005:DGM

[GRW05] Vivette Girault, Béatrice Rivière, and Mary F. Wheeler. A discontinuous Galerkin method with nonoverlapping domain decomposition for the Stokes and Navier–Stokes problems. *Mathematics of Computation*, 74(249):53–84, January 2005. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/mcom/2005-74-249/S0025-5718-04-01652-7/home.html`; `http://www.ams.org/mcom/2005-74-249/S0025-5718-04-01652-7/S0025-5718-04-01652-7.dvi`; `http://www.ams.org/mcom/2005-74-249/S0025-5718-04-01652-7/S0025-5718-04-01652-7.pdf`; `http://www.ams.org/mcom/2005-74-249/S0025-5718-04-01652-7/S0025-5718-04-01652-7.`

ps; http://www.ams.org/mcom/2005-74-249/S0025-5718-04-01652-7/S0025-5718-04-01652-7.tex.

Gropp:1992:EDDa

[GS92a] William D. Gropp and Barry F. Smith. Experiences with domain decomposition in three dimensions: Overlapping Schwarz methods. Technical report, Mathematics and Computer Science Division, Argonne National Laboratory, 1992. To appear in the Proceedings of the Sixth International Symposium on Domain Decomposition Methods.

Gropp:1992:EDDb

[GS92b] William D. Gropp and Barry F. Smith. Experiences with domain decomposition in three dimensions: Overlapping Schwarz methods. In *Domain Decomposition Methods in Science and Engineering*, pages 323–333. AMS, Providence, RI, USA, 1992. ISBN 0-8218-5158-6.

Galvis:2010:FBP

[GS10] Juan Galvis and Marcus Sarkis. FETI and BDD preconditioners for Stokes-Mortar-Darcy systems. *Communications in Applied Mathematics and Computational Science*, 5:1–30, 2010. ISSN 1559-3940.

Genseberger:2003:OSM

[GSv03] M. Genseberger, G. L. G. Sleijpen, and H. A. van der Vorst. An optimized Schwarz method in the Jacobi–Davidson method for eigenvalue problems. In *Domain decomposition methods in science and engineering*, pages 289–296 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Gruber:1994:PJE

[GT94] Ralf Gruber and Marco Tomassini, editors. *Proceedings of the 6th Joint EPS-APS International Conference on Physics Computing: Physics Computing '94, Palazzo dei Congressi, Lugano, Switzerland, 22–26 August 1994*. European Physical Society, Geneva, Switzerland, 1994. ISBN 2-88270-011-3. LCCN QC20.7.E4I58 1994.

Giorda:2003:RRP

[GTN03] L. Gerardo Giorda, P. Le Tallec, and F. Nataf. A Robin-Robin preconditioner for strongly heterogeneous advection-diffusion problems. In *Domain decomposition methods in science and engineering*, pages 411–418 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Gianni:1988:GBP

[GTZ88] Patrizia Gianni, Barry Trager, and Gail Zacharias. Gröbner bases and primary decomposition of polynomial ideals. *Journal of Symbolic Computation*, 6(2–3):149–168 (or 149–167??), October–December

1988. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic). Computational aspects of commutative algebra.

Gu:1997:ECR

[Gu97] Tongxiang Gu. Estimates of convergence rate of parallel multisplitting iterative methods with their applications. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 259–266. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Gustafson:1985:PEE

[Gus85] Karl Gustafson. Principles of electricity and economics in fluid dynamics. *Numerical Methods for Partial Differential Equations*, 1(2):145–157, 1985. CODEN NMPDEB. ISSN 0749-159X.

Gustafson:2003:OTP

[Gus03] Karl Gustafson. Operator trigonometry of preconditioning, domain decomposition, sparse approximate inverses, successive overrelaxation, minimum residual schemes. *Numerical Linear Algebra with Applications*, 10(4): 291–315, June 2003. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Gear:1987:SCP

[GV87] C. W. Gear and R. G. Voigt. Second Conference on Parallel Processing for Scientific Computing. *SIAM Journal on Scientific and Statistical Computing*, 8(2):S139–S287, March 1987. CODEN SIJCD4. ISSN 0196-5204.

Golub:1989:MC

[GV89] Gene H. Golub and Charles F. Van Loan. *Matrix Computations*, volume 3 of *Johns Hopkins Series in the Mathematical Sciences*. The Johns Hopkins University Press, Baltimore, MD, USA, second edition, 1989. ISBN 0-8018-3772-3 (hardcover), 0-8018-3739-1 (paperback). xix + 642 pp. LCCN QA188 .G65 1989. US$14.50.

Giraud:2003:GTO

[GVT03] L. Giraud, F. Guevara Vasquez, and R. S. Tuminaro. Grid transfer operators for highly variable coefficient problems in two-level non-overlapping domain decomposition methods. *Numerical Linear Algebra with Applications*, 10(5–6):467–484, July/September 2003. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Glowinski:1987:DDM

[GW87a] Roland Glowinski and Mary F. Wheeler. Domain decomposition and mixed finite element methods for elliptic problems. Technical Report 87-11, Rice University, 1987.

Gonzalez:1987:DDE

[GW87b] Ruth Gonzalez and Mary Fanett Wheeler. Domain decomposition for elliptic partial differential equations with Neumann boundary conditions. *Parallel Computing*, 5(1–2):257–263, July 1987. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). Proceedings of the international conference on vector and parallel computing—issues in applied research and development (Loen, 1986).

Glowinski:1988:DDMb

[GW88] Roland Glowinski and Mary Fanett Wheeler. Domain decomposition and mixed finite element methods for elliptic problems. In Roland Glowinski, Gene H. Golub, Gérard A. Meurant, and Jacques Périaux, editors, *First International Symposium on Domain Decomposition Methods for Partial Differential Equations (Paris, 1987)*, pages 144–172. SIAM, Philadelphia, PA, USA, 1988.

Gazdag:1989:CCS

[GW89] J. Gazdag and H.-H. Wang. Concurrent computing by sequential staging of tasks. *IBM Systems Journal*, 28(4):646–660, 1989. CODEN IBMSA7. ISSN 0018-8670.

Griffiths:1996:NA

[GW96] D. F. Griffiths and G. A. Watson, editors. *Numerical analysis*. World Scientific Publishing Co. Inc., River Edge, NJ, USA, 1996. ISBN 981-02-2719-1. x + 370 pp. A. R. Mitchell 75th birthday volume.

Ganis:2009:IMM

[GY09] Benjamin Ganis and Ivan Yotov. Implementation of a mortar mixed finite element method using a multiscale flux basis. *Computer Methods in Applied Mechanics and Engineering*, 198(49–52):3989–3998, 2009. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Gmati:2002:DDM

[GZ02] N. Gmati and N. Zrelli. A domain decomposition method for the Helmholtz equation in an unbounded waveguide. In *Acoustics, mechanics, and the related topics of mathematical analysis*, pages 171–177. World Sci. Publ., River Edge, NJ, 2002.

Guo:2000:VBC

[GZW+00] Qing Ping Guo, She Sheng Zhang, Jia Ning Wei, Yakup Paker, and Dennis Parkinson. A virtual boundary condition forecast algorithm in multigrid domain decomposition parallel computing. *Journal on Numerical Methods and Computer Applications*, 21(4):287–293, 2000. ISSN 1000-3266.

Haase:1997:HEO

[Haa97a] G. Haase. Hierarchical extension operators plus smoothing in domain decomposition

preconditioners. *Applied Numerical Mathematics: Transactions of IMACS*, 23(3):327–346, April 25, 1997. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.com/cas/tree/store/apnum/sub/1997/23/3/752.pdf`.

Haase:1997:NMV

[Haa97b] G. Haase. New matrix-by-vector multiplications based on a nonoverlapping domain decomposition data distribution. *Lecture Notes in Computer Science*, 1300:726–??, 1997. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Haase:2000:PAO

[Haa00] Gundolf Haase. A parallel AMG for overlapping and nonoverlapping domain decomposition. *Electronic Transactions on Numerical Analysis*, 10:41–55, 2000. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL `http://etna.mcs.kent.edu/vol.10.2000/pp41-55.dir/pp41-55.pdf`. Multilevel methods (Copper Mountain, CO, 1999).

Hackbusch:1984:LDC

[Hac84] W. Hackbusch. Local defect correction method and domain decomposition techniques. In Böhmer and Stetter [BS84b], pages 89–113. CODEN COSPDM. ISBN 3-211-81832-4. ISSN 0344-8029.

Theory and applications, Papers from the conference on error asymptotics and defect corrections held at Oberwolfach, July 1983.

Hackbusch:1991:FDM

[Hac91a] Wolfgang Hackbusch. The frequency decomposition multigrid method, part II: Convergence analysis based on the additive Schwarz method. Technical report, Christian-Albrecht-Universität, Kiel, Germany, 1991.

Hackbusch:1991:PAP

[Hac91b] Wolfgang Hackbusch, editor. *Parallel algorithms for partial differential equations*, volume 31 of *Notes on Numerical Fluid Mechanics*. Friedr. Vieweg & Sohn, Braunschweig, Germany, 1991. ISBN 3-528-07631-3.

Hackbusch:2003:DDD

[Hac03] W. Hackbusch. Direct domain decomposition using the hierarchical matrix technique. In *Domain decomposition methods in science and engineering*, pages 39–50 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Hardy:2004:PIM

[HB04] M. P. Hardy and I. Boglaev. Parallel implementation of a monotone domain decomposition algorithm for nonlinear reaction-diffusion problems. *The ANZIAM Journal*, 46((C)):C290–C303, 2004.

CODEN AJNOA2. ISSN 1446-1811 (print), 1446-8735 (electronic).

Hesch:2010:TTD

[HB10] Christian Hesch and Peter Betsch. Transient three-dimensional domain decomposition problems: frame-indifferent mortar constraints and conserving integration. *International Journal for Numerical Methods in Engineering*, 82(3):329–358, 2010. CODEN IJNMBH. ISSN 0029-5981.

Hu:1991:PSE

[HC91] Xian Cheng Hu and De Lin Chu. A preconditioner for solving elliptic problems based on domain decomposition. *J. Tsinghua Univ.*, 31(6):12–19, 1991. CODEN QDXKE8. ISSN 1000-0054.

Hu:1992:SAD

[HC92] Xian Cheng Hu and De Lin Chu. Spectral analysis of domain boundary operators contained in preconditioners for solving elliptic problems on the basis of domain decomposition. *J. Tsinghua Univ.*, 32(3):8–17, 1992. CODEN QDXKE8. ISSN 1000-0054.

Houzeaux:1998:DDM

[HC98] Guillaume Houzeaux and Ramon Codina. A domain decomposition method for the solution of moving subdomains in fluid dynamics. In *Computational mechanics (Buenos Aires, 1998)*, pages CD–ROM file. Centro Internac. Métodos Numér. Ing., Barcelona, Spain, 1998.

Houzeaux:2002:GDD

[HC02] G. Houzeaux and R. Codina. *A geometrical domain decomposition method in computational fluid dynamics*, volume 70 of *Monograph CIMNE*. International Center for Numerical Methods in Engineering (CIMNE), Barcelona, Spain, 2002. ISBN 84-95999-17-X. ii + 240 pp.

Houzeaux:2003:DRI

[HC03] G. Houzeaux and R. Codina. A Dirichlet/Robin iteration-by-subdomain domain decomposition method applied to advection-diffusion problems for overlapping subdomains. In *Domain decomposition methods in science and engineering*, pages 435–442 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Herrera:2005:MGV

[HDY05] Ismael Herrera, Martin Diaz, and Robert Yates. A more general version of the hybrid-Trefftz finite element model by application of TH-domain decomposition. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 301–308. Springer-Verlag, Berlin,

Germany / Heidelberg, Germany / London, UK / etc., 2005.

He:1995:SDD

[HE95] Qiming He and David J. Evans. Symmetric domain decomposition method for large scale and nonlinear evolution systems. *Parallel Algorithms and Applications*, 7(3–4):161–175, ???? 1995. CODEN PAAPEC. ISSN 1063-7192. URL `http://www.informaworld.com/smpp/content~content=a772402404`.

He:1996:DDM

[He96] Qiming He. Domain decomposition method for nonlinear generalized Schrödinger-type systems: semi-discrete problem. *Applied Mathematics and Computation*, 77(1): 33–52, June 1, 1996. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/amc/cas_sub/browse/browse.cgi?year=1996&volume=77&issue=1&aid=9500159`.

Hersvik:1998:AHU

[HE98] K. J. Hersvik and M. S. Espedal. Adaptive hierarchical upscaling of flow in heterogeneous reservoirs based on an a posteriori error estimate. *Computers and Geosciences*, 2 (4):311–336 (1999), 1998. CODEN CGEODT, CGOSDN. ISSN 1420-0597.

Heinrichs:1993:DDF

[Hei93a] Wilhelm Heinrichs. Domain decomposition for fourth-order problems. *SIAM Journal on Numerical Analysis*, 30(2): 435–453, April 1993. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Heinrichs:1993:SMM

[Hei93b] Wilhelm Heinrichs. Spectral multigrid methods for domain decomposition problems using patching techniques. *Applied Mathematics and Computation*, 59(2–3):165–176, December 1993. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Heise:1995:NSE

[Hei95] Bodo Heise. Nonlinear simulation of electromagnetic fields with domain decomposition methods on MIMD parallel computers. *Journal of Computational and Applied Mathematics*, 63(1–3):373–381, 1995. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). International Symposium on Mathematical Modelling and Computational Methods Modelling 94 (Prague, 1994).

Heinrich:2003:NTF

[Hei03] B. Heinrich. Nitsche-type finite element method for elliptic problems with singular-

ities. In *Numerical mathematics and advanced applications*, pages 837–845. Springer Italia, Milan, 2003.

Hemmingsson:1995:DDM

[Hem95] Lina Hemmingsson. A domain decomposition method for first-order PDEs. *SIAM Journal on Matrix Analysis and Applications*, 16(4):1241–1267, October 1995. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/27015`.

Hengst:1990:FMS

[Hen90] Sabine Hengst, editor. *Fifth Multigrid Seminar*, volume 90 of *Report MATH*. Karl-Weierstrass-Institut für Mathematik, Berlin, Germany, 1990. Papers from the seminar held in Eberswalde, May 14–18, 1990.

Herrera:1998:UAD

[Her98] Ismael Herrera. Unified approach to domain decomposition. In *Computational mechanics (Buenos Aires, 1998)*, pages CD–ROM file. Centro Internac. Métodos Numér. Ing., Barcelona, Spain, 1998.

Hestenes:1956:CGM

[Hes56] Magnus R. Hestenes. The conjugate gradient method for solving linear systems. In *Proc. Symp. Appl. Math VI, American Mathematical Society*, pages 83–102. McGraw-Hill, New York, 1956.

Hesthaven:1997:SPM

[Hes97] J. S. Hesthaven. A stable penalty method for the compressible Navier–Stokes equations. II. One-dimensional domain decomposition schemes. *SIAM Journal on Scientific Computing*, 18(3):658–685, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/27654`.

Hesthaven:1998:SPM

[Hes98] J. S. Hesthaven. A stable penalty method for the compressible Navier–Stokes equations: III. multidimensional domain decomposition schemes. *SIAM Journal on Scientific Computing*, 20(1):62–93, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/29947`.

Heuer:1999:DDI

[Heu99] N. Heuer. Domain decomposition for indefinite weakly singular integral equations. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 260–267 (electronic). DDM.org, Augsburg, 1999.

Hughes:1988:FVE

[HF88] Thomas R. Hughes and Robert M. Ferencz. Fully vectorized EBE preconditioners for nonlinear solid mechanics: Applications to large-scale three-dimensional continuum, shell and contact/impact problems. In Roland Glowinski, Gene H. Golub, Gérard A. Meurant, and Jacques Périaux, editors, *First International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1988.

Hadri:2008:FNS

[HG08] Bilel Hadri and Marc Garbey. A fast Navier Stokes flow simulation tool for image based CFD. *Journal of Algorithms & Computational Technology*, 2 (4):527–556, 2008. ISSN 1748-3018.

Hientzsch:2003:FSS

[Hie03] Bernhard Hientzsch. Fast solvers and Schwarz preconditioners for spectral Nédélec elements for a model problem in $H(\mathrm{curl})$. In *Domain decomposition methods in science and engineering*, pages 427–433 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Hientzsch:2005:DDP

[Hie05] Bernhard Hientzsch. Domain decomposition preconditioners for spectral Nédélec elements in two and three dimensions. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 597–604. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Hoppe:2005:DDM

[HIRW05] Ronald H. W. Hoppe, Yuri Iliash, Siegfried Ramminger, and Gerhard Wachutka. Domain decomposition methods in electrothermomechanical coupling problems. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 387–394. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Heise:1997:PSN

[HJ97a] Bodo Heise and Michael Jung. Parallel solvers for nonlinear elliptic problems based on domain decomposition ideas. *Parallel Computing*, 22(11):1527–1544, January 26, 1997. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/parco/cas_sub/browse/browse.cgi?year=1997&volume=22&issue=11&aid=1106`.

Hodgson:1997:DDP

[HJ97b] D. C. Hodgson and P. K. Ji-

mack. A domain decomposition preconditioner for a parallel finite element solver on distributed unstructured grids. *Parallel Computing*, 23(8): 1157–1181, July 25, 1997. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/parco/cas_sub/browse/browse.cgi?year=1997&volume=23&issue=8&aid=1205`.

Heise:1996:PSL

[HK96] B. Heise and M. Kuhn. Parallel solvers for linear and nonlinear exterior magnetic field problems based upon coupled FE/BE formulations. *Computing*, 56(3):237–258, 1996. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springer.at/springer.py?Page=10&Key=362&cat=300607/tocs/springer.py?Page=47&Key=340&cat=3&id_abstract=296&id_volume=27&id_journal=8`. International GAMM-Workshop on Multi-level Methods (Meisdorf, 1994).

He:1997:SDD

[HK97] Qiming He and Lishan Kang. Schwarz domain decomposition method for multidimensional and nonlinear evolution equations: subdomains have overlaps. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 57–64. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Heikkola:1998:DDM

[HK98a] E. Heikkola and Y. Kuznetsov. Domain decomposition method with nonmatching grids for 3D acoustic scattering problems. In *ENUMATH 97 (Heidelberg)*, pages 343–350. World Sci. Publ., River Edge, NJ, 1998.

Hsu:1998:CC

[HK98b] Wen-Lian Hsu and Ming-Yang Kao, editors. *Computing and combinatorics*, volume 1449 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1998. ISBN 3-540-64824-0.

Hoppe:2001:ODD

[HK01] R. H. W. Hoppe and Yu. A. Kuznetsov. Overlapping domain decomposition methods with distributed Lagrange multipliers. *East-West Journal of Numerical Mathematics*, 9(4):285–293, 2001. CODEN EJNMEA. ISSN 0928-0200.

Herbin:2002:FVC

[HK02a] Raphaèle Herbin and Dietmar Kröner, editors. *Finite volumes for complex applications III*. Hermes Science Publications, Paris, 2002. Problems and perspectives, Papers from the 3rd Symposium held

in Porquerolles, June 24–28, 2002.

Herrera:2002:DDM

[HK+02b] Ismael Herrera, David E. Keyes, et al., editors. *Domain decomposition methods in science and engineering: fourteenth International Conference on Domain Decomposition Methods, Cocoyoc, Mexico*. National Autonomous University of Mexico (UNAM), Mexico City, Mexico, 2002. ISBN 970-32-0859-2. LCCN QA402.2.

He:2008:PBP

[HK08] Yuan He and David E. Keyes. PDE-based parameter reconstruction through Schur and Schwarz decompositions. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 543–550. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Hegarty:1996:DDD

[HKD96] D. F. Hegarty, M. T. Kechadi, and K. A. Dawson. Dynamic domain decomposition and load balancing for parallel simulations of long-chained molecules. *Lecture Notes in Computer Science*, 1041:303–??, 1996. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Hackbusch:2005:DSC

[HKK05] Wolfgang Hackbusch, Boris N. Khoromskij, and Ronald Kriemann. Direct Schur complement method by hierarchical matrix techniques. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 581–588. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Hesthaven:2006:PLI

[HKL06] J. S. Hesthaven, S. M. Kaber, and L. Lurati. Padé–Legendre interpolants for Gibbs reconstruction. *Journal of Scientific Computing*, 28(2–3):337–359, 2006. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic).

Heckler:1997:PM

[HKM+97] Christian Heckler, Oliver Kluge, Torsten Metzner, Andreas Sorgatz, and Paul Zimmermann. Parallelism in MuPAD. *SIGSAM Bulletin (ACM Special Interest Group on Symbolic and Algebraic Manipulation)*, 31(3): 48, September 1997. CODEN SIGSBZ. ISSN 0163-5824 (print), 1557-9492 (electronic). Poster abstract only.

Haase:1991:UMP

[HL91] G. Haase and U. Langer. On the use of multigrid preconditioners in the domain decom-

position method. In *Parallel algorithms for partial differential equations (Kiel, 1990)*, volume 31 of *Notes Numer. Fluid Mech.*, pages 101–110. Vieweg & Son, Braunschweig, Germany, 1991.

Hazard:1996:STH

[HL96] Christophe Hazard and Marc Lenoir. On the solution of time-harmonic scattering problems for Maxwell's equations. *SIAM journal on mathematical analysis*, 27(6): 1597–1630, 1996. CODEN SJMAAH. ISSN 0036-1410 (print), 1095-7154 (electronic).

He:2009:FES

[HL09] Xiaoming He and Tao Lü. A finite element splitting extrapolation for second order hyperbolic equations. *SIAM Journal on Scientific Computing*, 31(6):4244–4265, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Haase:1990:NADa

[HLM90a] Gundolf Haase, Ulrich Langer, and Arnd Meyer. A new approach to the Dirichlet domain decomposition method. Technical report, Technical University of Chemnitz, 1990.

Haase:1990:NADb

[HLM90b] Gundolf Haase, Ulrich Langer, and Arnd Meyer. A new approach to the Dirichlet domain decomposition method. In *Fifth Multigrid Seminar (Eberswalde, 1990)*, volume 90 of *Rep. MATH*, pages 1–59. Karl-Weierstrass-Inst. Math., Berlin, Germany, 1990.

Haase:1991:ADDa

[HLM91a] G. Haase, U. Langer, and A. Meyer. The approximate Dirichlet domain decomposition method. Part I: An algebraic approach. *Computing*, 47(2):137–151, 1991. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Haase:1991:ADDb

[HLM91b] G. Haase, U. Langer, and A. Meyer. The approximate Dirichlet domain decomposition method. Part II: Applications to 2nd-order elliptic B.V.P.s. *Computing*, 47 (2):153–167, 1991. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Haase:1992:DDP

[HLM92] Gundolf Haase, Ulrich Langer, and Arnd Meyer. Domain decomposition preconditioners with inexact subdomain solvers. *Journal of Numerical linear algebra with applications*, 1(1):27–41, 1992. CODEN NLAAEM. ISSN 0129-3281.

Haase:1993:PVC

[HLM93] Gundolf Haase, Ulrich Langer, and Arnd Meyer. Parallelisierung und Vorkonditionierung des CG-Verfahrens

durch Gebietszerlegung. In *Numerische Algorithmen auf Transputer-Systemen (Heidelberg, 1991)*, Teubner Skr. Numer., pages 80–116. Teubner, Stuttgart, Germany; Leipzig, Germany, 1993.

Hardy:1934:I

[HLP34] G. H. Hardy, J. E. Littlewood, and G. Pólya. *Inequalities*. Cambridge University Press, Cambridge, UK, 1934. xii + 314 pp. LCCN QA303 .H32 1934.

Hart:1987:AMA

[HM87] Leslie Hart and Steve McCormick. Asynchronous multilevel adaptive methods for solving partial differential equations on multiprocessors: Computational analysis. Technical report, Comp. Math. Group, Univ. of Colorado at Denver, 1987. Submitted to Parallel Computing.

Huang:2000:SEU

[HM00] Jian Guo Huang and Jian Fei Mu. On the spectral equivalence of unconventional finite elements and their conventional relatives. *Applied mathematics and mechanics = Ying yung shu hsueh ho li hsueh*, 21(8):823–828, 2000. CODEN YSHLEM. ISSN 1000-0887.

Helmig:2006:MPS

[HMW06] Rainer Helmig, Alexander Mielke, and Barbara I. Wohlmuth, editors. *Multifield problems in solid and fluid mechanics*, volume 28 of *Lecture Notes in Applied and Computational Mechanics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006. ISBN 3-540-34959-6. xii + 571 pp.

Hsiao:1994:ECM

[HMZ94] George C. Hsiao, Michael D. Marcozzi, and Shangyou Zhang. An efficient computational method for the flow past an airfoil. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 497–502. AMS, Providence, RI, USA, 1994.

Heinkenschloss:2005:BNN

[HN05] Matthias Heinkenschloss and Hoang Nguyen. Balancing Neumann–Neumann methods for elliptic optimal control problems. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 589–596. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Heinkenschloss:2006:NND

[HN06] Matthias Heinkenschloss and Hoang Nguyen. Neumann–Neumann domain decomposition preconditioners for linear-quadratic elliptic optimal control problems. *SIAM Journal on Scientific Computing*,

28(3):1001–1028, May 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/volume-28/art_61277.html`.

Hlavacek:2006:WSD

[HND06] I. Hlaváček, J. Nedoma, and J. Daněk. Worst scenario and domain decomposition methods in geomechanics. *Future Generation Computer Systems*, 22(4):468–483, March 2006. CODEN FGSEVI. ISSN 0167-739X (print), 1872-7115 (electronic).

Holst:2003:ADD

[Hol03] M. Holst. Application of domain decomposition and partition of unity methods in physics and geometry. In *Domain decomposition methods in science and engineering*, pages 63–78 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Hoppe:2003:ADD

[Hop03] R. H. W. Hoppe. Adaptive domain decomposition techniques in electromagnetic field computation and electrothermomechanical coupling problems. In *Numerical mathematics and advanced applications*, pages 201–218. Springer Italia, Milan, 2003.

Hosseini:2007:EIR

[Hos07] M. M. Hosseini. An efficient index reduction method for differential-algebraic equations. *Glob. J. Pure Appl. Math.*, 3(2):113–124, 2007. ISSN 0973-1768.

Heinrich:2005:NTM

[HP05] B. Heinrich and K. Pönitz. Nitsche type mortaring for singularly perturbed reaction-diffusion problems. *Computing*, 75(4):257–279, August 2005. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=75&issue=4&spage=257`.

Houstis:1988:S

[HPP88] E. N. Houstis, T. S. Papatheodorou, and C. D. Polychronopoulos, editors. *Supercomputing*, volume 297 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1988. ISBN 3-540-18991-2.

Hoppe:2002:SOE

[HPS02] R. H. W. Hoppe, S. Petrova, and V. Schulz. 3D structural optimization in electromagnetics. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 479–486. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Hernandez-Ramos:2009:NDD

[HR09] Luis Manuel Hernández-Ramos. A nonconforming domain decomposition scheme based on a discretization without cross-points and alternating oblique projections. *Int. J. Comput. Methods*, 6(3):473–483, 2009. ISSN 0219-8762.

He:1994:ASL

[HS94a] Zi Gan He and Chuan Hong Sun. The analysis of the separated-layers algorithm by domain decomposition method. *J. Hydrodyn. Ser. B (English Ed.)*, 6(3):64–69, 1994. CODEN JOUHEI. ISSN 1001-6058.

Holst:1994:MDD

[HS94b] Michael Holst and Faisal Saied. Multigrid and domain decomposition methods for electrostatics problems. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 231–238. AMS, Providence, RI, USA, 1994.

Hahne:1996:SIE

[HS96] M. Hahne and E. P. Stephan. Schwarz iterations for the efficient solution of screen problems with boundary elements. *Computing*, 56(1):61–85, 1996. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springer.at/springer.py?Page=10&Key=362&cat=300607/tocs/springer.py?Page=47&Key=340&cat=3&id_abstract=286&id_volume=25&id_journal=8`.

Hsiao:2000:VMB

[Hsi00] George C. Hsiao. Variational methods for boundary integral equations: theory and applications. In *Current problems of analysis and mathematical physics (Italian) (Taormina, 1998)*, pages 59–76. Aracne, Rome, 2000.

Herty:2007:DDM

[HSS07] Michael Herty, Mohammed Seaïd, and Anita K. Singh. A domain decomposition method for conservation laws with discontinuous flux function. *Applied Numerical Mathematics: Transactions of IMACS*, 57 (4):361–373, April 2007. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Hahne:1995:FSC

[HST95] M. Hahne, E. P. Stephan, and W. Thies. Fast solvers for coupled FEM-BEM equations. I. In *Fast solvers for flow problems (Kiel, 1994)*, volume 49 of *Notes Numer. Fluid Mech.*, pages 121–130. Vieweg & Son, Braunschweig, Germany, 1995.

Hsiao:2000:DDM

[HSW00] G. C. Hsiao, O. Steinbach, and W. L. Wendland. Domain decomposition methods

via boundary integral equations. *Journal of Computational and Applied Mathematics*, 125(1–2):521–537, 2000. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). Numerical analysis 2000, Vol. VI, Ordinary differential equations and integral equations.

Hu:2010:NDD

[HSW10] Qiya Hu, Shi Shu, and Junxian Wang. Nonoverlapping domain decomposition methods with a simple coarse space for elliptic problems. *Mathematics of Computation*, 79(272):2059–2078, October 2010. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/journals/mcom/2010-79-272/S0025-5718-10-02361-6/home.html`; `http://www.ams.org/journals/mcom/2010-79-272/S0025-5718-10-02361-6/S0025-5718-10-02361-6.pdf`.

Hu:2004:ESS

[HSY04] Qiya Hu, Zhongci Shi, and Dehao Yu. Efficient solvers for saddle-point problems arising from domain decompositions with Lagrange multipliers. *SIAM Journal on Numerical Analysis*, 42(3):905–933 (electronic), June 2004. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/40410`.

Hackbusch:1991:MMS

[HT91] Wolfgang Hackbusch and Ulrich Trottenberg, editors. *Multigrid methods: special topics and applications. II*, volume 189 of *GMD-Studien [GMD Studies]*. Gesellschaft für Mathematik und Datenverarbeitung mbH, St. Augustin, Switzerland, 1991. ISBN 3-88457-189-3. Papers from the Third European Conference on Multigrid Methods held in Bonn, October 1–4, 1990.

Hagstrom:1988:NED

[HTJ88] Thomas Hagstrom, R. P. Tewarson, and Aron Jazcilevich. Numerical experiments on a domain decomposition algorithm for nonlinear elliptic boundary value problems. *Applied Mathematics Letters*, 1 (3):299–302, 1988. CODEN AMLEEL. ISSN 0893-9659 (print), 1873-5452 (electronic).

Hu:1999:SDM

[Hu99] Jian Wei Hu. A strongly discrete maximum principle and a domain decomposition method for nonselfadjoint elliptic problems. *Math. Numer. Sin.*, 21 (3):283–292, 1999. ISSN 0254-7791.

Hu:2004:PPS

[Hu04] Qiya Hu. Preconditioning Poincaré–Steklov operators arising from domain decompo-

sitions with mortar multipliers. *IMA Journal of Numerical Analysis*, 24(4):643–669, October 2004. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL `http://imanum.oupjournals.org/cgi/content/abstract/24/4/643; http://imanum.oupjournals.org/cgi/reprint/24/4/643`.

Hu:2005:NIU

[Hu05] Q. Hu. Numerical integrations and unit resolution multipliers for domain decomposition methods with nonmatching grids. *Computing*, 74(2):101–129, March 2005. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=74&issue=2&spage=101`.

Huang:1990:UFD

[Hua90] Lan Chieh Huang. The ULWC finite difference scheme for the numerical solution of incompressible Navier–Stokes equations. *Math. Numer. Sinica*, 12 (2):194–205, 1990. ISSN 0254-7791.

Huang:1993:DDD

[Hua93] Lan Chieh Huang. Domain decomposition for the difference solution of incompressible Navier–Stokes equations. *Chinese J. Numer. Math. Appl.*, 15(1):30–47, 1993. ISSN 0899-4358.

Huang:1995:DDM

[Hua95] Jian Guo Huang. A domain decomposition method for nonconforming finite elements—the case of strong overlap. *Math. Numer. Sinica*, 17(1):47–58, 1995. ISSN 0254-7791.

Huang:1996:ASA

[Hua96] Jian Guo Huang. An additive Schwarz alternating method using nonconforming finite elements—the case of weak overlap. *Math. Numer. Sin.*, 18(1):103–112, 1996. ISSN 0254-7791.

Huang:1997:CIM

[Hua97] Jianguo Huang. Chaotic iterative methods by space decomposition and subspace correction. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 65–72. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Huang:2001:CVS

[Hua01] J. Huang. On the construction of a vertex space preconditioner for Morley element. *East-West Journal of Numerical Mathematics*, 9(4):295–305, 2001. CODEN EJNMEA. ISSN 0928-0200.

Huang:2004:NSE

[Hua04] Jianguo Huang. Numerical solution of the elastic body-plate problem by nonoverlapping domain decomposition type techniques. *Mathematics of*

Computation, 73(245):19–34, January 2004. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/mcom/2004-73-245/S0025-5718-03-01532-1/home.html`; `http://www.ams.org/mcom/2004-73-245/S0025-5718-03-01532-1/S0025-5718-03-01532-1.dvi`; `http://www.ams.org/mcom/2004-73-245/S0025-5718-03-01532-1/S0025-5718-03-01532-1.pdf`; `http://www.ams.org/mcom/2004-73-245/S0025-5718-03-01532-1/S0025-5718-03-01532-1.ps`; `http://www.ams.org/mcom/2004-73-245/S0025-5718-03-01532-1/S0025-5718-03-01532-1.tex`.

Hvidsten:1990:PFE

[Hvi90] Anders Hvidsten. On the parallelization of a finite element structural analysis program. Technical report, University of Bergen, Norway, 1990. Ph.D. Thesis. Computer Science Department.

Hackbusch:1995:FSF

[HW95] Wolfgang Hackbusch and Gabriel Wittum, editors. *Fast solvers for flow problems*, volume 49 of *Notes on Numerical Fluid Mechanics*. Friedr. Vieweg & Sohn, Braunschweig, Germany, 1995. ISBN 3-528-07649-6.

Hackbusch:1996:BEI

[HW96] Wolfgang Hackbusch and Gabriel Wittum, editors. *Boundary elements: implementation and analysis of advanced algorithms*, volume 54 of *Notes on Numerical Fluid Mechanics*. Friedr. Vieweg & Sohn, Braunschweig, Germany, 1996. ISBN 3-528-07654-2.

Hu:2009:PFF

[HW09] Fu-Gang Hu and Chao-Fu Wang. Preconditioned formulation of FE-BI equations with domain decomposition method for calculation of electromagnetic scattering from cavities. *IEEE Transactions on Antennas and Propagation*, 57(8): 2506–2511, 2009. CODEN IETPAK. ISSN 0018-926X.

Herrmann:1995:WSB

[HWP95] Hans J. Herrmann, D. E. Wolf, and Ernst Poppel, editors. *Workshop on Supercomputing in Brain Research: from tomography to neural networks, HLRZ, KFA Julich, Germany, November 21–23, 1994*. World Scientific Publishing Co. Pte. Ltd., P. O. Box 128, Farrer Road, Singapore 9128, 1995. ISBN 981-02-2250-5. LCCN QP356.W67 1994.

Hwang:1996:BEI

[HXA96] Kai Hwang, Zhiwei Xu, and Masahiro Arakawa. Benchmark evaluation of the IBM SP2 for parallel signal processing. *IEEE Transactions on Parallel and Distributed Systems*, 7(5):522–536 (or 522–535??), May 1996. CODEN

ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic). URL `http://www.computer.org/tpds/td1996/l0522abs.htm`.

Hagstrom:2001:TEA

[HXG01] Thomas Hagstrom, Liyang Xu, and John Goodrich. On the theory of exact and approximate boundary conditions for linearized compressible flow problems. In *Absorbing boundaries and layers, domain decomposition methods*, pages 201–216. Nova Sci. Publ., Huntington, NY, USA, 2001.

Yu:1998:DDM

[hY98] De hao Yu. Domain decomposition method based on natural boundary integral equations for elliptic problems in infinite domain. In *Proceedings of Third China–Japan Seminar on Numerical Mathematics (Dalian, 1997)*, pages 170–179. Science Press, Beijing, PRC, 1998.

Herrera:2010:MFD

[HY10] Ismael Herrera and Robert A. Yates. The multipliers-free domain decomposition methods. *Numerical Methods for Partial Differential Equations*, 26(4): 874–905, 2010. CODEN NMPDEB. ISSN 0749-159X.

Herrera:2003:IAD

[HYD03] I. Herrera, R. Yates, and M. A. Diaz. The indirect approach to domain decomposition. In *Domain decomposition methods in science and engineering*, pages 51–62 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Hoffmann:1993:PED

[HZ93] K.-H. Hoffmann and J. Zou. Parallel efficiency of domain decomposition methods. *Parallel Computing*, 19(12):1375–1391, December 1993. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Hu:2003:NDD

[HZ03] Qiya Hu and Jun Zou. A nonoverlapping domain decomposition method for Maxwell's equations in three dimensions. *SIAM Journal on Numerical Analysis*, 41 (5):1682–1708, October 2003. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/39690`.

Ivanov:2006:DDA

[IAK06] E. G. Ivanov, H. Andrä, and A. N. Kudryavtsev. Domain decomposition approach for automatic parallel generation of tetrahedral grids. *Computational Methods in Applied Mathematics*, 6(2):178–193 (electronic), 2006. ISSN 1609-4840.

Israeli:2002:HDD

[IBA02] M. Israeli, E. Braverman, and A. Averbuch. A hi-

erarchical domain decomposition method with low communication overhead. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 395–403. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

IEEE:1991:PSA

[IEE91] IEEE, editor. *Proceedings, Supercomputing '91: Albuquerque, New Mexico, November 18–22, 1991*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. ISBN 0-8186-9158-1 (IEEE case), 0-8186-2158-3 (IEEE paper), 0-8186-6158-5 (IEEE microfiche), 0-89791-459-7 (ACM). LCCN QA76.5 .S894 1991. ACM order number 415913. IEEE Computer Society Press order number 2158. IEEE catalog number 91CH3058-5.

IEEE:1993:PSP

[IEE93] IEEE, editor. *Proceedings, Supercomputing '93: Portland, Oregon, November 15–19, 1993*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. ISBN 0-8186-4340-4 (paperback), 0-8186-4341-2 (microfiche), 0-8186-4342-0 (hardcover), 0-8186-4346-3 (CD-ROM). ISSN 1063-9535. LCCN QA76.5 .S96 1993.

IEEE:1994:PSH

[IEE94a] IEEE, editor. *Proceedings of the Scalable High-Performance Computing Conference, May 23–25, 1994, Knoxville, Tennessee*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. ISBN 0-8186-5680-8, 0-8186-5681-6. LCCN QA76.5 .S244 1994. IEEE catalog number 94TH0637-9.

IEEE:1994:PTI

[IEE94b] IEEE, editor. *Proceedings of the Third IEEE International Symposium on High Performance Distributed Computing, August 2–5, 1994, San Francisco, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. ISBN 0-8186-6395-2. LCCN QA76.9.D5I328 1994. IEEE catalog no. 94TH0667-6.

IEEE:1995:PSP

[IEE95] IEEE, editor. *Proceedings of the 1994 Scalable Parallel Libraries Conference: October 12–14, 1994, Mississippi State University, Mississippi*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. ISBN 0-8186-6895-4. LCCN QA76.58 .S34 1994.

IEEE:1996:PSM

[IEE96] IEEE, editor. *Proceedings. Second MPI Developer's Con-*

ference: Notre Dame, IN, USA, 1–2 July 1996. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. ISBN 0-8186-7533-0. LCCN QA76.642 .M67 1996.

Ivanov:1995:CCF

[IK95] S. A. Ivanov and V. G. Korneev. Choice of coordinate functions of higher orders and preconditioning in the framework of the domain decomposition method. *Izvestiia vysshikh uchebnykh zavedenii. Matematika*, 4 (??):62–81, 1995. CODEN IVUMBY. ISSN 0021-3446.

Iliev:1999:RAN

[IKM+99] O. P. Iliev, M. S. Kaschiev, S. D. Margenov, Bl. H. Sendov, and P. S. Vassilevski, editors. *Recent advances in numerical methods and applications. II*. World Scientific Publishing Co. Inc., River Edge, NJ, USA, 1999. ISBN 981-02-3827-4.

Ilin:1969:PSC

[Il'69] V. P. Il'in. *The Properties of Some Classes of Differentiable Functions of Several Variables Defined in an n-dimensional Region*, volume 81 of *2*, pages 91–256. AMS, Providence, RI, USA, 1969. Originally in Trudy Mat. Inst. Steklov. 66 (1962), 227–363.

Ilin:1989:PSM

[Il′89] V. P. Il′in, editor. *Proektsionno-setochnye metody v zadachakh chislennogo analiza*. Akad. Nauk SSSR Sibirsk. Otdel. Vychisl. Tsentr, Novosibirsk, USSR, 1989. 176 pp.

Ilin:1990:CMM

[Il′90] V. P. Il′in, editor. *Chislennye metody i matematicheskoe modelirovanie*. Akad. Nauk SSSR Sibirsk. Otdel. Vychisl. Tsentr, Novosibirsk, USSR, 1990. 167 pp.

Ilin:1991:AIF

[Il′91] V. P. Il′in. Application of incomplete factorizations in domain decomposition methods. *Soviet J. Numer. Anal. Math. Modelling*, 6(4):299–314, 1991. ISSN 0169-2895.

Ilin:1992:IFM

[Il′92] V. P. Il′in. Incomplete factorization methods: some questions of theory and practice. *Siberian J. Comput. Math.*, 1 (1):1–18, 1992. ISSN 1062-7944.

Ilin:1993:VMT

[Il′93] V. P. Il′in, editor. *Vychislitelnye metody i tekhnologiya resheniya zadach matematicheskoi fiziki*. Ross. Akad. Nauk Sibirsk. Otdel. Vychisl. Tsentr, Novosibirsk, USSR, 1993. 169 pp.

Iske:2005:MSD

[IL05] Armin Iske and Jeremy Levesley. Multilevel scattered data approximation by adaptive domain decomposition. *Numerical Algorithms*, 39(1–3):187–198, July 2005. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Iliev:2007:NST

[ILW07] O. Iliev, R. Lazarov, and J. Willems. Numerical study of two-grid preconditioners for 1-D elliptic problems with highly oscillating discontinuous coefficients. *Computational Methods in Applied Mathematics*, 7 (1):48–67, 2007. ISSN 1609-4840.

Idelsohn:1998:CM

[IOD98] Sergio R. Idelsohn, Eugenio Oñate, and Eduardo N. Dvorkin, editors. *Computational mechanics*. Centro Internacional de Métodos Numéricos en Ingeniería, Barcelona, Spain, 1998. ISBN 84-89925-15-1. 1 CD-ROM (Windows, Macintosh and UNIX).

Ibanescu:1998:DDM

[IP98] Radu Ibănescu and Victor-Florin Poteraşu. Domain decomposition for multibody dynamics. A natural partition scheme. *Bul. Inst. Politeh. Iaşi. Secţ. I. Mat. Mec. Teor. Fiz.*, 44(48)(3–4):89–107, 1998. ISSN 0304-5188.

Ikeda:1998:PCS

[IU98] Tsutomu Ikeda and Akiho Ueda. Parallel computation of spots-and-stripes patterns formed by motile bacteria. In *Proceedings of Third China–Japan Seminar on Numerical Mathematics (Dalian, 1997)*, pages 57–72. Science Press, Beijing, PRC, 1998.

Israeli:1993:DDM

[IVA93a] M. Israeli, L. Vozovoi, and A. Averbuch. Domain decomposition methods for solving parabolic PDEs on multiprocessors. *Applied Numerical Mathematics: Transactions of IMACS*, 12(1–3):193–212, May 1993. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). Special issue to honor Professor Saul Abarbanel on his sixtieth birthday (Neveh, 1992).

Israeli:1993:PIA

[IVA93b] M. Israeli, L. Vozovoi, and A. Averbuch. Parallelizing implicit algorithms for time-dependent problems by parabolic domain decomposition. *Journal of Scientific Computing*, 8(2):151–166, 1993. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic).

Janka:2007:DDS

[Jan07] Aleš Janka. A domain decomposition solver for ferromagnetism. *Mathematics and*

Computers in Simulation, 76 (1–3):86–93, 2007. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic).

Jin:2009:PRG

[JC09] Chao Jin and Xiao-Chuan Cai. A preconditioned recycling GMRES solver for stochastic Helmholtz problems. *Communications in Computational Physics*, 6(2):342–353, 2009. ISSN 1815-2406.

Jin:2007:PDD

[JCL07] Chao Jin, Xiao-Chuan Cai, and Congming Li. Parallel domain decomposition methods for stochastic elliptic equations. *SIAM Journal on Scientific Computing*, 29(5):2096–2114 (electronic), ???? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Fu:2006:PCF

[jFZ06] Chao jiang Fu and Wu Zhang. Parallel computing for finite element structural analysis using conjugate gradient method based on domain decomposition. *J. Shanghai Univ.*, 10 (6):517–521, 2006. CODEN JSUNFV. ISSN 1007-6417.

Jurczyk:2002:DDC

[JG02] T. Jurczyk and B. Głut. Domain decomposition coupled with Delaunay mesh generation. *Lecture Notes in Computer Science*, 2329:353–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2329/23290353.htm; http://link.springer-ny.com/link/service/series/0558/papers/2329/23290353.pdf`.

Juarez:2003:NSM

[JG03] L. H. Juárez and R. Glowinski. Numerical simulation of the motion of pendula in an incompressible viscous fluid by Lagrange multiplier/fictitious domain methods. In *Domain decomposition methods in science and engineering*, pages 185–192 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Jiang:1996:MAD

[Jia96] Mei Qun Jiang. Matrix analysis of domain decomposition methods for the biharmonic equation. *Numer. Math. J. Chinese Univ.*, 18(1):1–6, 1996. ISSN 1000-081X.

Jiang:2006:CAF

[Jia06] Bin Jiang. Convergence analysis of P_1 finite element method for free boundary problems on non-overlapping subdomains. *Computer Methods in Applied Mechanics and Engineering*, 196(1–3):371–378, 2006. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Jangveladze:2001:DDB

[JK01] T. Jangveladze and Z. Kiguradze. Domain decomposition

for Bitsadze-Samarskii boundary value problem. *Rep. Enlarged Sess. Semin. I. Vekua Appl. Math.*, 16(1–3):8–11, 2001. ISSN 1512-0066.

Jenkins:2001:ABD

[JKKM01] E. W. Jenkins, C. E. Kees, C. T. Kelley, and C. T. Miller. An aggregation-based domain decomposition preconditioner for groundwater flow. *SIAM Journal on Scientific Computing*, 23(2):430–441, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/37227`.

Jung:1991:AMM

[JL91] Michael Jung and Ulrich Langer. Applications of multilevel methods to practical problems. *Surveys Math. Indust.*, 1(3):217–257, 1991. CODEN SMINER. ISSN 0938-1953.

Jenkins:2008:DDM

[JL08] Eleanor Jenkins and Hyesuk Lee. A domain decomposition method for the Oseen-viscoelastic flow equations. *Applied Mathematics and Computation*, 195(1):127–141, January 15, 2008. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Jun:2006:AMD

[JM06a] Younbae Jun and Tsun-Zee Mai. ADI method — domain decomposition. *Applied Numerical Mathematics: Transactions of IMACS*, 56 (8):1092–1107, August 2006. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Jun:2006:DDM

[JM06b] Younbae Jun and Tsun-Zee Mai. Domain decomposition method for parabolic problems with Neumann conditions. *Applied Mathematics and Computation*, 182 (2):1683–1695, November 15, 2006. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Jun:2006:IDD

[JM06c] Younbae Jun and Tsun-Zee Mai. IPIC domain decomposition algorithm for parabolic problems. *Applied Mathematics and Computation*, 177(1): 352–364, June 1, 2006. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Jun:2006:RDD

[JM06d] Younbae Jun and Tsun-Zee Mai. Rectangular domain decomposition method for parabolic problems. *J. Korea Soc. Math. Educ. Ser. B Pure Appl. Math.*, 13(4):281–294, 2006. ISSN 1226-0657.

Jun:2009:NAR

[JM09] Younbae Jun and Tsun-Zee Mai. Numerical analysis of the

rectangular domain decomposition method. *Communications in Numerical Methods in Engineering*, 25(7):810–826, 2009. CODEN CANMER. ISSN 1069-8299.

Joseph:1994:FEC

[JMM+94] A. Joseph, F. Mignot, F. Murat, B. Prum, and R. Rentschler, editors. *First European Congress of Mathematics. Vol. II*, volume 120 of *Progress in Mathematics*. Birkhäuser Verlag, Basel, Switzerland, 1994. ISBN 3-7643-2799-5. Invited lectures. Part 2.

Jung:1999:VAP

[JN99] M. Jung and S. V. Nepomnyaschikh. Variable additive preconditioning procedures. *Computing*, 62(2):109–128, 1999. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://link.springer-ny.com/link/service/journals/00607/bibs/9062002/90620109.htm; http://link.springer-ny.com/link/service/journals/00607/papers/9062002/90620109.pdf`.

Japhet:2001:BIC

[JN01a] C. Japhet and Frédéric Nataf. The best interface conditions for domain decomposition methods: absorbing boundary conditions. In *Absorbing boundaries and layers, domain decomposition methods*, pages 348–373. Nova Sci. Publ., Huntington, NY, USA, 2001.

Jimack:2001:PAN

[JN01b] Peter K. Jimack and Sarfraz A. Nadeem. Parallel application of a novel domain decomposition preconditioner for the stable finite element solution of three-dimensional convection-dominated PDEs. *Lecture Notes in Computer Science*, 2150:592–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2150/21500592.htm; http://link.springer-ny.com/link/service/series/0558/papers/2150/21500592.pdf`.

Jimack:2002:PDD

[JN02] Peter K. Jimack and Sarfraz A. Nadeem. A parallel domain decomposition algorithm for the adaptive finite element solution of 3-D convection-diffusion problems. *Lecture Notes in Computer Science*, 2330:797–805, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2330/23300797.htm; http://link.springer-ny.com/link/service/series/0558/papers/2330/23300797.pdf`.

Jimack:2003:PAN

[JN03] P. K. Jimack and S. A. Nadeem. Parallel application of a novel domain decomposition preconditioner for the adaptive finite-element solution of three-dimensional convection-dominated PDEs. *Concurrency and Computation: Practice and Experience*, 15(10):939–956, August 25, 2003. CODEN CCPEBO. ISSN 1532-0626 (print), 1532-0634 (electronic).

Johnson:1987:NSP

[Joh87] Claes Johnson. *Numerical Solutions of Partial Differential Equations by the Finite Element Method*. Cambridge University Press, Cambridge, UK, 1987. ISBN 0-521-34514-6. 278 pp. LCCN TA347.F5 J621 1987.

Jiang:2006:MME

[JT06] Yaqin Jiang and Beiyi Tian. Mixed mortar element method for $P_1^{NC-}P_0$ element and its multigrid for Stokes problem. *J. Nat. Sci. Nanjing Norm. Univ.*, 8(2):1–10, 2006. ISSN 1001-4616.

Jung:1997:PMG

[Jun97] M. Jung. On the parallelization of multi-grid methods using a non-overlapping domain decomposition data structure. *Applied Numerical Mathematics: Transactions of IMACS*, 23(1):119–137, March 7, 1997. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.com/cas/tree/store/apnum/sub/1997/23/1/746.pdf`. Multilevel methods (Oberwolfach, 1995).

Jun:2009:EDD

[Jun09] Younbae Jun. An efficient domain decomposition method for three-dimensional parabolic problems. *Applied Mathematics and Computation*, 215(8):2815–2825, December 15, 2009. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Jun:2010:SNP

[Jun10] Younbae Jun. A stable noniterative Prediction/Correction domain decomposition method for hyperbolic problems. *Applied Mathematics and Computation*, 216(8):2286–2292, June 15, 2010. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Jia:2001:ODD

[JY01] Zu Peng Jia and De Hao Yu. An overlapping domain decomposition method based on natural boundary reduction for a 2-D exterior Helmholtz problem. *Journal on Numerical Methods and Computer Applications*, 22(4):241–253, 2001. ISSN 1000-3266.

Knyazev:2007:BLO

[KALO07] A. V. Knyazev, M. E. Argentati, I. Lashuk, and E. E. Ovtchinnikov. Block locally optimal preconditioned eigenvalue xolvers (BLOPEX) in hypre and PETSc. *SIAM Journal on Scientific Computing*, 29(5):2224–2239 (electronic), 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kang:1987:PAD

[Kan87] Li Shan Kang. Parallel algorithms and domain decomposition. In *Numerical methods for partial differential equations (Shanghai, 1987)*, volume 1297 of *Lecture Notes in Math.*, pages 61–75. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1987.

Karageorghis:1994:CSM

[Kar94] Andreas Karageorghis. Conforming spectral methods for Poisson problems in cuboidal domains. *Journal of Scientific Computing*, 9(3):341–350, 1994. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic).

Karageorghis:1997:CSD

[Kar97] A. Karageorghis. Conforming spectral domain decomposition schemes. *Lecture Notes in Computer Science*, 1196:220–??, 1997. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Katzer:1994:PSD

[Kat94] Edgar Katzer. A parallel subspace decomposition method for hyperbolic equations. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 239–244. AMS, Providence, RI, USA, 1994.

Kruis:2008:RMI

[KB08] Jaroslav Kruis and Zdeněk Bittnar. Reinforcement-matrix interaction modeled by FETI method. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 567–573. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Kane:1989:SSP

[KCC89] James H. Kane, Arthur D. Carlson, and Donald L. Cox, editors. *Solution of superlarge problems in computational mechanics*. Plenum Press, New York, NY, USA; London, UK, 1989. ISBN 0-306-43370-2.

Kushner:1992:NMS

[KD92] Harold J. Kushner and Paul G. Dupuis. *Numerical methods for stochastic control problems in continuous time*, volume 24 of *Applications of Mathematics (New York)*. Springer-Verlag, Berlin, Germany / Hei-

delberg, Germany / London, UK / etc., 1992. ISBN 0-387-97834-8. x + 439 pp.

Klaassen:1995:PNM

[KDBG95] A. J. Klaassen, B. Delord, Y. Burnod, and E. Guigon. Parallel neuron modelling using domain decomposition: Application toward learning sensori-motor sequences in prefrontal cortex. In Herrmann et al. [HWP95], pages 361–370. ISBN 981-02-2250-5. LCCN QP356.W67 1994.

Keyes:1995:AAN

[Key95] David E. Keyes. Aerodynamic applications of Newton–Krylov–Schwarz solvers. In *Fourteenth International Conference on Numerical Methods in Fluid Dynamics (Bangalore, 1994)*, volume 453 of *Lecture Notes in Phys.*, pages 1–20. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1995.

Keyes:1999:HSD

[Key99] D. E. Keyes. How scalable is domain decomposition in practice? In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 286–297 (electronic). DDM.org, Augsburg, 1999.

Keyes:2003:DDM

[Key03] D. E. Keyes. Domain decomposition in the mainstream of computational science. In *Domain decomposition methods in science and engineering*, pages 79–94 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Kawarada:1997:VIN

[KFK97] H. Kawarada, H. Fujita, and H. Kawahara. Variational inequalities for Navier–Stokes flows coupled with potential flow through porous media. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 403–410. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Keyes:1987:CDD

[KG87] David E. Keyes and William D. Gropp. A comparison of domain decomposition techniques for elliptic partial differential equations and their parallel implementation. *SIAM Journal on Scientific and Statistical Computing*, 8 (2):S166–S202, 1987. CODEN SIJCD4. ISSN 0196-5204. Parallel processing for scientific computing (Norfolk, Va., 1985).

Keyes:1989:DDL

[KG89] David E. Keyes and William D. Gropp. Domain decomposition with local mesh refinement. Technical Report YALEU/DCS/RR-726, Yale University, August 1989.

Keyes:1990:DDT

[KG90] David E. Keyes and William D. Gropp. Domain decomposition techniques for the parallel solution of nonsymmetric systems of elliptic BVPs. *Appl. Num. Math.*, 6:281–301, 1990.

Keyes:1989:DDT

[KGE89] David E. Keyes, William D. Gropp, and Ali Ecder. Domain decomposition techniques for large sparse nonsymmetric systems arising from elliptic problems with first-order terms. In *Solution of superlarge problems in computational mechanics (Mystic, CT, 1988)*, pages 251–266. Plenum, New York, NY, USA, 1989.

Kumar:2003:CSA

[KGTL03] Vipin Kumar, Marina L. Gavrilova, Chih Jeng Kenneth Tan, and Pierre L'Ecuyer, editors. *Computational science and its applications—ICCSA 2003. Part I*, volume 2667 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2003. ISBN 3-540-40155-5.

Khanal:2008:ENM

[Kha08] Harihar Khanal. An efficient numerical method for a system of reaction diffusion equations in the cytoplasmic fluid in an intricate geometry of the photoreceptor rods. *Adv. Appl. Fluid Mech.*, 3(2):141–173, 2008. ISSN 0973-4686.

Kucera:2005:FBD

[KHD05] Radek Kučera, Jaroslav Haslinger, and Zdeněk Dostál. The FETI based domain decomposition method for solving 3D-multibody contact problems with Coulomb friction. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 369–376. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Khoromskii:1988:KZMa

[Kho88a] B. N. Khoromskiĭ. *Kraevye zadachi magnitostatiki v nepolnonelineinoi postanovke i metody ikh resheniya. Issledovanie nelineinoi problemy.* Soobshcheniya Ob″edinennogo Instituta Yadernykh Issledovaniĭ. Dubna [Communications of the Joint Institute for Nuclear Research. Dubna], R11-88-480. Joint Inst. Nuclear Res., Dubna, USSR, 1988. 23 pp. With an English summary.

Khoromskii:1988:KZMb

[Kho88b] B. N. Khoromskiĭ. *Kraevye zadachi magnitostatiki v nepolnonelineinoi postanovke i metody ikh resheniya. Postroenie pereobuslavlivatelei.* Soobshcheniya Ob″edinennogo Instituta Yadernykh Issledovaniĭ. Dubna [Communications of

the Joint Institute for Nuclear Research. Dubna], R11-88-784. Joint Inst. Nuclear Res., Dubna, USSR, 1988. 32 pp. With an English summary.

Khoromskij:1996:FCI

[Kho96] Boris N. Khoromskij. On fast computations with the inverse to harmonic potential operators via domain decomposition. *Numerical Linear Algebra with Applications*, 3 (2):91–111, March/April 1996. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic). URL `http://www3.interscience.wiley.com/cgi-bin/abstract?ID=15000986`.

Korneev:1996:PDD

[KI96] V. G. Korneev and S. A. Ivanov. Preconditioning in the domain decomposition methods for the p-version with the hierarchical bases. In *Proceedings of the International Conference on the Optimization of the Finite Element Approximations (St. Petersburg, 1995)*, volume 8(9) of *Mat. Model.*, pages 63–73. ????, ????, 1996. ISSN 0234-0879.

Kim:1994:NTH

[Kim94] Seongjai Kim. Numerical treatments for the Helmholtz problem by domain decomposition techniques. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 245–250. AMS, Providence, RI, USA, 1994.

Kim:1998:DDI

[Kim98a] Seongjai Kim. Domain decomposition iterative procedures for solving scalar waves in the frequency domain. *Numerische Mathematik*, 79(2):231–259, April 1998. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.de/link/service/journals/00211/bibs/8079002/80790231.htm; http://science.springer.de/nmee/bibs/8079002/80790231.htm`.

Kim:1998:URI

[Kim98b] Seongjai Kim. On the use of rational iterations and domain decomposition methods for the Helmholtz problem. *Numerische Mathematik*, 79(4):529–552, June 1998. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.de/link/service/journals/00211/bibs/8079004/80790529.htm; http://link.springer.de/link/service/journals/00211/papers/8079004/80790529.pdf; http://link.springer.de/link/service/journals/00211/papers/8079004/80790529.ps.gz`.

Kim:2007:FDP

[Kim07] Hyea Hyun Kim. A FETI-DP preconditioner for mortar methods in three dimensions. *Electronic Transactions on Numerical Analysis*, 26: 103–120, 2007. ISSN 1068-9613 (print), 1097-4067 (electronic).

Kiss:1990:IMN

[Kis90] Béla Kiss. An iterative method for nonselfadjoint elliptic problems on regions partitioned into substructures. *Ann. Univ. Sci. Budapest. Sect. Comput.*, 10:19–33, 1990. ISSN 0138-9491.

Korneev:1999:DDP

[KJ99] Vadim G. Korneev and Søren Jensen. Domain decomposition preconditioning in the hierarchical p-version of the finite element method. *Applied Numerical Mathematics: Transactions of IMACS*, 29(4):479–518, April 1, 1999. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.com/cas/tree/store/apnum/sub/1999/29/4/942.pdf`.

Kang:1997:CEM

[KK97] Kab Seok Kang and Do Young Kwak. Convergence estimates for multigrid algorithms with Kaczmarz smoothing. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 227–232. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Kaporin:1999:PSL

[KK99] I. E. Kaporin and I. N. Konshin. Parallel solution of large sparse SPD linear systems based on overlapping domain decomposition. *Lecture Notes in Computer Science*, 1662:436–??, 1999. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Kornhuber:2003:MMV

[KK03] R. Kornhuber and R. Krause. On multigrid methods for vector-valued Allen–Cahn equations with obstacle potential. In *Domain decomposition methods in science and engineering*, pages 307–314 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Kopyssov:2005:PDO

[KKNR05] S. P. Kopyssov, I. V. Krasnopyorov, A. K. Novikov, and V. N. Rytchkov. Parallel distributed object-oriented framework for domain decomposition. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 605–614. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Kahou:2007:EFM

[KKP07] Guy Antoine Atenekeng Kahou, Emmanuel Kamgnia, and Bernard Philippe. An explicit formulation of the multiplicative Schwarz preconditioner. *Applied Numerical Mathematics: Transactions of IMACS*, 57(11–12):1197–1213, 2007. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Kuznetsov:1990:DDMa

[KKS90] I. B. Kuznetsov, S. B. Kuznetsov, and K. M. Shkol′nik. The domain decomposition method for the parallelization of a sequential upper relaxation algorithm. In *Numerical methods and mathematical modeling (Russian)*, pages 95–104. Akad. Nauk SSSR Sibirsk. Otdel. Vychisl. Tsentr, Novosibirsk, USSR, 1990.

Kaporin:19xx:BSP

[KKYxx] I. E. Kaporin, L. Yu. Kolotilina, and A. Yu. Yermin. Block SSOR preconditionings for high order 3D FE systems II: incomplete BSSOR preconditionings. Technical report, The Department of Numerical Mathematics and Cybernetics of the Moscow State University, Leninskije Gory, 119899, Moscow B-234, USSR and the Leningrad Branch of V. A. Steklov Mathematical Institute of the USSR Academy of Sciences, Fontanka 27, Leningrad 191011, USSR and the Department of Numerical Mathematics of the USSR Academy of Sciences, Ryleev str. 29, 119034, Moscow, USSR, 19xx.

Kuznetsov:1988:DDM

[KL88] Yu. A. Kuznetsov and A. V. Lapin. Domain decomposition method to realize an implicit difference scheme for the one-phase Stefan problem. *Soviet J. Numer. Anal. Math. Modelling*, 3(6):487–504, 1988. ISSN 0169-2895. Translated from the Russian.

Korshiya:1990:DMS

[KL90] T. K. Korshiya and G. B. Lobzhanidze. The decomposition method for solving block-tape systems of algebraic equations. *Tbiliss. Gos. Univ. Inst. Prikl. Mat. Trudy*, 40:103–149, 247–248, 1990. ISSN 0376-2637.

Kapurkin:1995:DDM

[KL95] Andrei Kapurkin and G. Lube. A domain decomposition method for singularly perturbed elliptic problems. In *Fast solvers for flow problems (Kiel, 1994)*, volume 49 of *Notes Numer. Fluid Mech.*, pages 151–162. Vieweg & Son, Braunschweig, Germany, 1995.

Kim:2005:FDF

[KL05] Hyea Hyun Kim and Chang-Ock Lee. A FETI-DP formulation for two-dimensional

Stokes problem on nonmatching grids. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 353–360. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Kraus:2007:LAC

[KL07] Johannes Kraus and Ulrich Langer, editors. *Lectures on advanced computational methods in mechanics*, volume 1 of *Radon Series on Computational and Applied Mathematics*. Walter de Gruyter GmbH & Co. KG, Berlin, 2007. ISBN 3-11-019556-9. Lectures from the Special Semester on Computational Mechanics held in Linz, October 3–December 16, 2005.

Klar:1998:AID

[Kla98] Axel Klar. Asymptotic-induced domain decomposition methods for kinetic and drift diffusion semiconductor equations. *SIAM Journal on Scientific Computing*, 19(6): 2032–2050, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/28617`.

Klawonn:2006:FDD

[Kla06] Axel Klawonn. FETI domain decomposition methods for second order elliptic partial differential equations. *GAMM-Mitt.*, 29(2):319–341, 2006. ISSN 0936-7195.

Knopp:2002:ISM

[KLM02] T. Knopp, G. Lube, and H. Müller. Iterative substructuring methods for incompressible and nonisothermal flows using the $k - \epsilon$ turbulence model. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 495–502. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Kiss:1991:PDD

[KM91a] Béla Kiss and Győző Molnárka. A preconditioned domain decomposition algorithm for the solution of the elliptic Neumann problem. In *Parallel algorithms for partial differential equations (Kiel, 1990)*, volume 31 of *Notes Numer. Fluid Mech.*, pages 129–139. Vieweg & Son, Braunschweig, Germany, 1991.

Kolodziej:1991:DDB

[KM91b] Jan A. Kołodziej and Grzegorz Musielak. Domain decomposition in boundary collocation method. In *Parallel algorithms for partial differential equations (Kiel, 1990)*, volume 31 of *Notes Numer. Fluid Mech.*, pages 140–156. Vieweg & Son, Braunschweig, Germany, 1991.

Kiss:1992:PDD

[KM92] B. Kiss and Gy. Molnárka. A preconditioned domain decomposition algorithm for the solution of the elliptic Neumann problem. *Period. Math. Hungar.*, 24(3):151–165, 1992. CODEN PMHGAW. ISSN 0031-5303.

Kluev:2001:TAT

[KM01] V. V. Kluev and N. E. Mastorakis, editors. *Topics in applied and theoretical mathematics and computer science*. Mathematics and Computers in Science and Engineering. WSEAS. World Scientific & Engineering Academy & Society, Athens, 2001. ISBN 960-8052-47-6. iv + 324 pp.

Kloucek:2003:CMM

[KM03] P. Klouček and L. A. Melara. The computational modelling of micromagnetic fine structures in uniaxial ferromagnets using the nonconforming domain decomposition method. In *Numerical mathematics and advanced applications*, pages 291–300. Springer Italia, Milan, 2003.

Kaucher:1991:CAS

[KMM91] E. Kaucher, S. M. Markov, and G. Mayer, editors. *Computer arithmetic, scientific computation and mathematical modelling*, volume 12 of *IMACS Annals on Computing and Applied Mathematics*. J. C. Baltzer A.G., Basel, Switzerland, 1991. Papers from the Second International Conference held in Albena, September 24–28, 1990.

Khoromskij:1993:CEC

[KMN93] B. N. Khoromskij, G. E. Mazurkevich, and È. G. Nikonov. *Cost-effective computations with boundary interface operators in elliptic problems*. Soobshcheniya Ob″edinennogo Instituta Yadernykh Issledovaniĭ. Dubna [Communications of the Joint Institute for Nuclear Research. Dubna], E11-93-163. Ob″ed. Inst. Yadernykh Issled., Dubna, USSR, 1993. 25 pp.

Khoromsky:1990:DDM

[KMZ90] B. N. Khoromsky, G. E. Mazurkevich, and E. P. Zhidkov. Domain decomposition method for magnetostatics nonlinear problems in combined formulation. *Soviet J. Numer. Anal. Math. Modelling*, 5(2):111–136, 1990. ISSN 0169-2895.

Kuznetsov:1992:ODD

[KN92] Yu. A. Kuznetsov and P. Neittaanmäki. Overlapping domain decomposition methods for the simplified Dirichlet-Signorini problem. In *Computational and applied mathematics, II (Dublin, 1991)*, pages 297–306. North-Holland Publishing Co., Amsterdam, The Netherlands, 1992.

Kako:2002:DDM

[KN02] T. Kako and H. M. Nasir. Domain decomposition method applied to a coupling vibration problem between shell and acoustics. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 487–493. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Kalia:1993:PAM

[KNG+93] R. K. Kalia, A. Nakano, D. L. Greenwell, P. Vashishta, and S. W. de Leeuw. Parallel algorithms for molecular dynamics simulations on distributed-memory MIMD machines. *Supercomputer*, 10(2):11–25, March 1993. CODEN SPCOEL. ISSN 0168-7875.

Krizek:2004:CGA

[KNGK04] M. Křížek, P. Neittaanmäki, R. Glowinski, and S. Korotov, editors. *Conjugate gradient algorithms and finite element methods*. Scientific Computation. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2004. ISBN 3-540-21319-8. xvi + 382 pp.

Kwak:2002:DDP

[KNP02] Do Y. Kwak, S. V. Nepomnyaschikh, and H. C. Pyo. Domain decomposition preconditioning for anisotropic problems. In *International Conference on Computational Mathematics. Part I, II*, pages 597–606. ICM&MG Pub., Novosibirsk, 2002.

Kwak:2003:DDM

[KNP03] D. Y. Kwak, S. V. Nepomnyaschikh, and H. C. Pyo. Domain decomposition for model heterogeneous anisotropic problem. *Numerical Linear Algebra with Applications*, 10(1–2):129–157, January/March 2003. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Kawarada:1999:ANM

[KNS99] H. Kawarada, M. Nakamura, and Z. Shi, editors. *Advances in numerical mathematics; Proceedings of the Fourth Japan-China Joint Seminar on Numerical Mathematics*, GAKUTO International Series. Mathematical Sciences and Applications, 12. Gakkōtosho Co. Ltd., Tokyo, Japan, 1999. ISBN 4-7625-0421-1. Held at Chiba University, Chiba, August 24–28, 1998.

Kuznetsov:1994:SMO

[KNT94] Yu. A. Kuznetsov, P. Neittaanmäki, and P. Tarvainen. Schwarz methods for obstacle problems with convection-diffusion operators. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 251–256.

AMS, Providence, RI, USA, 1994.

Kitagawa:1998:CBS

[KNY98a] K. Kitagawa, H. Nakamura, and G. Yagawa. Comparison between substructure method and domain decomposition method. *Lecture Notes in Computer Science*, 1401:358–??, 1998. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Knyazev:1998:PEO

[Kny98b] Andrew V. Knyazev. Preconditioned eigensolvers—an oxymoron? *Electronic Transactions on Numerical Analysis*, 7:104–123 (electronic), 1998. ISSN 1068-9613 (print), 1097-4067 (electronic). Large scale eigenvalue problems (Argonne, IL, 1997).

Kuznetsov:1989:MMD

[KO89] Yu. A. Kuznetsov and G. K. Osorgin. *Mnogosetochnyi metod dlya trekhmernoi zadachi teorii uprugosti*, volume 240 of Preprint *[Preprint]*. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1989. 28 pp.

Kuznetsov:1990:MMP

[KO90] Yu. A. Kuznetsov and G. K. Osorgin. Multigrid method for the plane problem of elasticity theory. *Soviet J. Numer. Anal. Math. Modelling*, 5(2): 137–156, 1990. ISSN 0169-2895.

Kako:2008:NMW

[KO08] Takashi Kako and Yoshiharu Ohi. Numerical method for wave propagation problem by FDTD method with PML. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 551–558. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Koelbel:2001:TSC

[Koe01] Charles Koelbel, editor. *Tenth SIAM Conference on Parallel Processing for Scientific Computing*. SIAM, Philadelphia, PA, USA, 2001. ISBN 0-89871-492-3. 1 CD–ROM (Windows, Macintosh and UNIX).

Kojima:1991:IMF

[Koj91] Fumio Kojima. Identification of microscopic flaws arising in thermal tomography by domain decomposition method. In *Computation and control, II (Bozeman, MT, 1990)*, volume 11 of *Progr. Systems Control Theory*, pages 237–245. Birkhäuser Boston Inc., Cambridge, MA, USA, 1991.

Koko:2007:LMB

[Kok07] Jonas Koko. Lagrange multiplier-based domain decomposition methods for a non-linear sedimentary basin problem. *Computers and Geosciences*, 11(4):307–317,

2007. CODEN CGEODT, CGOSDN. ISSN 1420-0597.

Koko:2008:CAO

[Kok08a] Jonas Koko. Convergence analysis of optimization-based domain decomposition methods for a bonded structure. *Applied Numerical Mathematics: Transactions of IMACS*, 58(1):69–87, January 2008. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Koko:2008:UBR

[Kok08b] Jonas Koko. Uzawa block relaxation domain decomposition method for the two-body contact problem with Tresca friction. *Computer Methods in Applied Mechanics and Engineering*, 198(3–4): 420–431, 2008. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Koko:2009:UBR

[Kok09] Jonas Koko. Uzawa block relaxation domain decomposition method for a two-body frictionless contact problem. *Applied Mathematics Letters*, 22(10):1534–1538, 2009. CODEN AMLEEL. ISSN 0893-9659 (print), 1873-5452 (electronic).

Konshin:1990:OMD

[Kon90] I. N. Kon′shin. Optimization of multigrid domain decomposition methods. In *Numerical methods and software (Russian)*, pages 73–94. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, Russia, 1990.

Kopriva:1989:DDB

[Kop89] David A. Kopriva. Domain decomposition with both spectral and finite difference methods for the accurate computation of flows with shocks. *Applied Numerical Mathematics: Transactions of IMACS*, 6(1–2):141–151, December 1989. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). Spectral multidomain methods (Paris, 1988).

Kornhuber:1997:AMM

[Kor97] Ralf Kornhuber. Adaptive monotone multigrid methods for some non-smooth optimization problems. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 177–191. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Korneev:2001:AOM

[Kor01] V. G. Korneev. An almost optimal method for solving Dirichlet problems on decomposition subdomains of the hierarchical *hp*-version. *Differ. Uravn.*, 37(7):959–968, 1007, 2001. ISSN 0374-0641.

Korneev:2002:FDD

[Kor02] V. Korneev. Fast domain decomposition solvers for *hp*-discretizations of 2nd order el-

liptic equations. In *International Conference on Computational Mathematics. Part I, II*, pages 536–547. ICM&MG Pub., Novosibirsk, 2002.

Karageorghis:1990:EDM

[KP90] Andreas Karageorghis and Timothy N. Phillips. On efficient direct methods for conforming spectral domain decomposition techniques. *Journal of Computational and Applied Mathematics*, 33(2):141–155, 1990. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic).

Kopteva:2009:ROS

[KPP09] Natalia Kopteva, Maria Pickett, and Helen Purtill. A robust overlapping Schwarz method for a singularly perturbed semilinear reaction-diffusion problem with multiple solutions. *Int. J. Numer. Anal. Model.*, 6(4):680–695, 2009. ISSN 1705-5105.

Klawonn:2008:SEF

[KPR08] Axel Klawonn, Luca F. Pavarino, and Oliver Rheinbach. Spectral element FETI-DP and BDDC preconditioners with multi-element subdomains. *Computer Methods in Applied Mechanics and Engineering*, 198(3–4):511–523, 2008. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Kahlert:1995:CDP

[KPW95] M. Kahlert, M. Paffrath, and U. Wever. Comparison of data partitioning and domain decomposition methods in real life problems. In *Advanced mathematics: computations and applications (Novosibirsk, 1995)*, pages 564–576. NCC Publ., Novosibirsk, 1995.

Kahlert:1996:GPV

[KPW96] Martin Kahlert, Meinhard Paffrath, and Utz Wever. Grid partitioning versus domain decomposition: a comparison of some industrial problems on workstation clusters. *Surveys Math. Indust.*, 6(2):133–166, 1996. CODEN SMINER. ISSN 0938-1953.

Kang:1990:DDM

[KR90] Li Shan Kang and Garry Rodrigue. Domain decomposition methods for solving PDEs on multi-processors. *Acta Math. Sci. (English Ed.)*, 10(4):459–470, 1990. ISSN 0252-9602.

Kanaun:2003:BPM

[KR03] S. Kanaun and V. M. Romero. Boundary point method in the dynamic and static problems of mathematical physics. In *Domain decomposition methods in science and engineering*, pages 443–450 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Klawonn:2006:PID

[KR06] Axel Klawonn and Oliver Rheinbach. A parallel implementation of dual-primal FETI methods for three-dimensional linear elasticity using a transformation of basis. *SIAM Journal on Scientific Computing*, 28(5):1886–1906 (electronic), 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Korneev:2007:SDD

[KR07] V. Korneev and A. Rytov. Spectral discretizations of 3-d elliptic problems and fast domain decomposition methods. *Zh. Vychisl. Mat. Mat. Fiz.*, 47(10):1727–1745, 2007. ISSN 0044-4669.

Korneev:2008:FDD

[KR08] Vadim Korneev and A. Rytov. Fast domain decomposition algorithms for discretizations of 3-d elliptic equations by spectral elements. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 559–565. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Klawonn:2010:HSP

[KR10] Axel Klawonn and Oliver Rheinbach. Highly scalable parallel domain decomposition methods with an application to biomechanics. *Zeitschrift für Angewandte Mathematik und Mechanik*, 90(1):5–32, 2010. CODEN ZAMMAX. ISSN 0044-2267 (print), 1521-4001 (electronic).

Krautle:2005:DDM

[Krä05] Serge Kräutle. A domain decomposition method using efficient interface-acting preconditioners. *Mathematics of Computation*, 74(251): 1231–1256, July 2005. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/mcom/2005-74-251/S0025-5718-04-01706-5/home.html`; `http://www.ams.org/mcom/2005-74-251/S0025-5718-04-01706-5/S0025-5718-04-01706-5.dvi`; `http://www.ams.org/mcom/2005-74-251/S0025-5718-04-01706-5/S0025-5718-04-01706-5.pdf`; `http://www.ams.org/mcom/2005-74-251/S0025-5718-04-01706-5/S0025-5718-04-01706-5.ps`; `http://www.ams.org/mcom/2005-74-251/S0025-5718-04-01706-5/S0025-5718-04-01706-5.tex`.

Krause:2009:NMM

[Kra09] Rolf Krause. A nonsmooth multiscale method for solving frictional two-body contact problems in 2D and 3D with multigrid efficiency. *SIAM Journal on Scientific Computing*, 31(2):1399–1423, ???? 2009. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Kamenetskii:1991:BEP

[KRT91a] D. S. Kamenetskiĭ, V. S. Ryaben′kiĭ, and S. V. Tsynkov. Boundary equations with projectors in composite domains. *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint*, 112(??):20, 1991.

Kamenetskii:1991:DAB

[KRT91b] D. S. Kamenetskiĭ, V. S. Ryaben′kiĭ, and S. V. Tsynkov. Decomposition algorithms based on boundary equations with projectors. *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint*, 113(??):23, 1991.

Klawonn:2005:SCR

[KRW05] Axel Klawonn, Oliver Rheinbach, and Olof B. Widlund. Some computational results for dual-primal FETI methods for elliptic problems in 3D. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 361–368. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Krzyzanowski:2005:DDD

[Krz05] Piotr Krzyżanowski. Domain decomposition for discontinuous Galerkin method with application to Stokes flow. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 623–630. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Knyazev:1988:MIM

[KS88] A. V. Knyazev and A. L. Skorokhodov. *Modifitsirovannye iteratsionnye metody v podprostranstve dlya resheniya sistem uravnenii so znakoneopredelennymi matritsami i spektralnykh zadach*, volume 205 of Preprint *[Preprint]*. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1988. 48 pp.

Komornik:1999:RAC

[KS99] Vilmos Komornik and Jan Sokołowski, editors. *Recent advances in control of PDEs*. Polish Academy of Sciences Systems Research Institute, Warsaw, Poland, 1999. ISSN 0324-8569. i–ii and 379–683 pp. Control Cybernet. **2**8 (1999), no. 3.

Krause:2005:FSC

[KS05] Rolf Krause and Oliver Sander. Fast solving of contact problems on complicated geometries. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 495–502. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Kiwi:1998:MMB

[KST98] Marcos Kiwi, Daniel A. Spielman, and Shang-Hua Teng. Min-max-boundary domain decomposition. *Lecture Notes in Computer Science*, 1449: 137–146, 1998. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Kiwi:2001:MMB

[KST01] Marcos Kiwi, Daniel A. Spielman, and Shang-Hua Teng. Min-max-boundary domain decomposition. *Theoretical Computer Science*, 261(2):253–266, June 28, 2001. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic). URL `http://www.elsevier.nl/gej-ng/10/41/16/203/25/25/abstract.html; http://www.elsevier.nl/gej-ng/10/41/16/203/25/25/article.pdf`.

Kuznetsov:1983:IMU

[KT83] Yu. A. Kuznetsov and O. D. Trufanov. Iterative methods that utilize domain decomposition for solving the Helmholtz wave equation. In *Computational methods in linear algebra (Russian) (Moscow, 1982)*, pages 151–174. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1983.

Kuznetsov:1987:DDM

[KT87] Yu. A. Kuznetsov and O. D. Trufanov. Domain decomposition methods for the wave Helmholtz equation. *Soviet J. Numer. Anal. Math. Modelling*, 2(2):113–136, 1987. ISSN 0169-2895.

Karageorghis:1996:SDD

[KT96] Andreas Karageorghis and Tao Tang. A spectral domain decomposition approach for steady Navier–Stokes problems in circular geometries. *Comput. & Fluids*, 25(6):541–549, 1996. CODEN CPFLB1. ISSN 0045-7930.

Kulkarni:2005:DDB

[KT05] Deepak V. Kulkarni and Daniel A. Tortorelli. A domain decomposition based two-level Newton scheme for nonlinear problems. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 615–622. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Kuhn:1996:DDB

[Kuh96] Michael Kuhn. Domain decomposition boundary element methods: preprocessing and parallel solution. In *Boundary elements: implementation and analysis of advanced algorithms (Kiel, 1996)*, volume 54 of *Notes Numer. Fluid Mech.*, pages 147–158. Vieweg & Son, Braunschweig, Germany, 1996.

Kuhn:1998:EPF

[Kuh98] M. Kuhn. Efficient parallel FEM-BEM calculations based on local parallelization and domain decomposition. In *ENUMATH 97 (Heidelberg)*, pages 429–436. World Sci. Publ., River Edge, NJ, 1998.

Kupka:1999:SGS

[Kup99] F. G. Kupka. Sparse grid spectral methods and some results from approximation theory. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 57–64 (electronic). DDM.org, Augsburg, 1999.

Kurbatov:1993:SEC

[Kur93] A. A. Kurbatov. Some estimates concerning the overlapping domain decomposition method for the convection-diffusion equation. *East-West Journal of Numerical Mathematics*, 1(4):303–309, 1993. CODEN EJNMEA. ISSN 0928-0200.

Kushner:1997:DDM

[Kus97] Harold J. Kushner. Domain decomposition methods for large Markov chain control problems and nonlinear elliptic-type equations. *SIAM Journal on Scientific Computing*, 18(5):1494–1516, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/27465`.

Kuznetsov:1985:MVP

[Kuz85] Yu. A. Kuznetsov, editor. *Metody vychislitelnoi i prikladnoi matematiki*. Akad. Nauk SSSR Vychisl. Tsentr, Moscow, USSR, 1985. 173 pp.

Kuznetsov:1986:FCD

[Kuz86a] Yu. A. Kuznetsov. Fictitious component and domain decomposition methods for the solution of eigenvalue problems. In *Computing methods in applied sciences and engineering, VII (Versailles, 1985)*, pages 155–172. North-Holland Publishing Co., Amsterdam, The Netherlands, 1986.

Kuznetsov:1986:IMS

[Kuz86b] Yurij A. Kuznetsov. Iterative methods in subspaces for eigenvalue problems. In *Vistas in applied mathematics*, Transl. Ser. Math. Engrg., pages 96–113. Optimization Software, New York, NY, USA, 1986.

Kuznetsov:1988:CAM

[Kuz88a] Yu. A. Kuznetsov, editor. *Chislennyi analiz i matematicheskoe modelirovanie*. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, Russia, 1988. Papers from the Seventh French-Italian-Soviet Symposium on Numerical Methods for Solving Large Systems of

Functional Equations held in Moscow, June 1987.

Kuznetsov:1988:MMD

[Kuz88b] Yu. A. Kuznetsov. Multilevel methods for domain decomposition. In *Numerical analysis and mathematical modeling (Russian)*, pages 109–126. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1988.

Kuznetsov:1989:DDM

[Kuz89a] S. B. Kuznetsov. The domain decomposition method in three-dimensional problems of magnetostatics. In *Projection-difference methods in problems of numerical analysis (Russian)*, pages 91–108. Akad. Nauk SSSR Sibirsk. Otdel. Vychisl. Tsentr, Novosibirsk, USSR, 1989.

Kuznetsov:1989:MDDb

[Kuz89b] S. B. Kuznetsov. Method of domain decomposition in 3-D problems of magnetostatics. In *Proceedings of the Fifth International Symposium on Numerical Methods in Engineering, Vol. 1, 2 (Lausanne, 1989)*, pages 571–577. Comput. Mech., Southampton, UK, 1989.

Kuznetsov:1989:AMD

[Kuz89c] Yu. A. Kuznetsov. Algebraic multigrid domain decomposition methods. *Soviet J. Numer. Anal. Math. Modelling*, 4 (5):351–379, 1989. ISSN 0169-2895.

Kuznetsov:1989:MDDa

[Kuz89d] Yu. A. Kuznetsov. Multigrid domain decomposition methods for elliptic problems. In *Proceedings of the Eighth International Conference on Computing Methods in Applied Sciences and Engineering (Versailles, 1987)*, volume 75(1–3) of *Computer Methods in Applied Mechanics and Engineering*, pages 185–193. Elsevier, Amsterdam, The Netherlands, 1989. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Kuznetsov:1989:MDDc

[Kuz89e] Yuri A. Kuznetsov. Multilevel domain decomposition methods. *Appl. Num. Math.*, 5, 1989. To appear.

Kuznetsov:1990:CMP

[Kuz90a] Yu. A. Kuznetsov, editor. *Chislennye metody i programmnoe obespechenie*. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, Russia, 1990. 164 pp.

Kuznetsov:1990:DDMb

[Kuz90b] Yu. A. Kuznetsov. Domain decomposition methods for unsteady convection-diffusion problems. In *Computing methods in applied sciences and engineering (Paris, 1990)*, pages 211–227. SIAM, Philadelphia, PA, USA, 1990.

Kuznetsov:1990:MLD

[Kuz90c] Yu. A. Kuznetsov. Multilevel domain decomposition methods. *Applied Numerical Mathematics: Transactions of IMACS*, 6(4):303–314, May 1990. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Kuznetsov:1991:MDD

[Kuz91a] S. B. Kuznetsov. A method of domain decomposition in 3-D problems of magnetostatics. *EDF Bull. Direction Études Rech. Sér. C Math. Inform.*, 4 (??):iii + 17–22, 1991. ISSN 0013-4511.

Kuznetsov:1991:ODD

[Kuz91b] Yuri A. Kuznetsov. Overlapping domain decomposition methods for FE-problems with elliptic singular perturbed operators. In Roland Glowinski, Yuri A. Kuznetsov, Gérard A. Meurant, Jacques Périaux, and Olof Widlund, editors, *Fourth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1991.

Kuznetsov:1992:CMM

[Kuz92] Yu. A. Kuznetsov, editor. *Chislennye metody i matematicheskoe modelirovanie*. Rossiĭskaya Akademiya Nauk Institut Vychislitel′noĭ Matematiki, Moscow, Russia, 1992. ISBN 5-201-08800-7. 128 pp.

Kuznetsov:1998:ODD

[Kuz98] Yu. A. Kuznetsov. Overlapping domain decomposition with non-matching grids. *East-West Journal of Numerical Mathematics*, 6(4):299–308, 1998. CODEN EJNMEA. ISSN 0928-0200.

Kuznetsov:2002:DDF

[Kuz02] Yu. A. Kuznetsov. Domain decomposition, fictitious domains, and distributed Lagrange multipliers. In *International Conference on Computational Mathematics. Part I, II*, pages 41–49. ICM&MG Pub., Novosibirsk, 2002.

Kuznetsov:2005:MFE

[Kuz05] Yuri Kuznetsov. Mixed finite element methods for diffusion equations on nonmatching grids. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 311–318. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Kvarteroni:1988:DDM

[Kva88] Alfio Kvarteroni. A domain decomposition method for the numerical solution of partial differential equations. In *Numerical analysis and mathematical modeling (Russian)*, pages 79–92. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, USSR, 1988.

Khoromskij:1993:SEP

[KW93] B. N. Khoromskij and W. L. Wendland. Spectrally equivalent preconditioners for boundary equations in substructuring techniques. *East-West Journal of Numerical Mathematics*, 1(1):1–26, 1993. CODEN EJNMEA. ISSN 0928-0200.

Klawonn:1999:DDM

[KW99] Axel Klawonn and Olof B. Widlund. A domain decomposition method with Lagrange multipliers for linear elasticity. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 49–56 (electronic). DDM.org, Augsburg, 1999.

Klawonn:2000:DDM

[KW00a] Axel Klawonn and Olof B. Widlund. A domain decomposition method with Lagrange multipliers and inexact solvers for linear elasticity. *SIAM Journal on Scientific Computing*, 22(4):1199–1219, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/35249`.

Krause:2000:NDD

[KW00b] R. H. Krause and B. I. Wohlmuth. Nonconforming domain decomposition techniques for linear elasticity. *East-West Journal of Numerical Mathematics*, 8(3):177–206, 2000. CODEN EJNMEA. ISSN 0928-0200.

Krautle:2001:CMV

[KW01] S. Kräutle and K. Wielage. The CGBI method for viscous channel flows and its preconditioning. In *Proceedings of the Third World Congress of Nonlinear Analysts, Part 6 (Catania, 2000)*, volume 47(6) of *Nonlinear Analysis, Theory, Methods and Applications*, pages 4193–4203. Elsevier, Amsterdam, The Netherlands, 2001. CODEN NOANDD. ISSN 0362-546X (print), 1873-5215 (electronic).

Klawonn:2002:FDM

[KW02] Axel Klawonn and Olof B. Widlund. FETI-DP methods for elliptic problems with discontinuous coefficients in three dimensions. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 405–411. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Kuttler:2008:DDD

[KW08] Ulrich Küttler and Wolfgang A. Wall. The dilemma of domain decomposition approaches in fluid-structure interactions with fully enclosed incompressible fluids. In *Domain decomposition methods*

in science and engineering XVII, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 575–582. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Kwak:2003:CMC

[Kwa03] D. Y. Kwak. V-cycle multigrid convergence for cell centered finite difference method, 3-D case. In *Domain decomposition methods in science and engineering*, pages 452–457 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Keys:1994:DDM

[KX94] David E. Keys and Jinchao Xu, editors. *Domain decomposition methods in scientific and engineering computing: proceedings of the Seventh International Conference on Domain Decomposition, October 27–30, 1993, the Pennsylvania State University*, volume 180 of *Contemporary mathematics*. AMS, Providence, RI, USA, 1994. ISBN 0-8218-5171-3. ISSN 0271-4132 (print), 1098-3627 (electronic). LCCN QA402.2 .I55 1993.

Keyes:1995:DDM

[KX95] David E. Keyes and Jinchao Xu, editors. *Domain Decomposition Methods in Science and Engineering: Proceedings of the Seventh International Conference on Domain Decomposition, October 27–30, 1993, The Pennsylvania State University*, Contemporary Mathematics. AMS, Providence, RI, USA, 1995. ISBN 0-8218-5171-3. LCCN QA402.2 .I55 1993.

Kolotilina:1989:BSP

[KY89] L. Yu. Kolotilina and A. Yu. Yeremin. Block SSOR preconditionings for high order 3D FE systems. *BIT (Nordisk tidskrift for informationsbehandling)*, 29(4):805–823, 1989. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Kolotilina:19xx:FSA

[KYxx] L. Yu. Kolotilina and A. Yu. Yermin. Factorized sparse approximate inverse preconditioners. Technical report, The Leningrad Branch of V. A. Steklov Mathematical Iinstitute of the USSR Academy of Sciences, Fontanka 27, Leningrad 191011, USSR and the Department of Numerical Mathematics of the USSR Academy of Sciences, Ryleev str. 29, 119034, Moscow, USSR, 19xx.

Laevskii:1992:DDA

[Lae92a] Yu. M. Laevskiĭ. A domain decomposition algorithm without overlapping subdomains for the solution of parabolic equations. *Zhurnal vychislitel'noi matematiki i matematicheskoi fiziki*, 32(11):1744–

1755, 1992. CODEN ZVMFAN. ISSN 0044-4669.

Laevskii:1992:OOP

[Lae92b] Yu. M. Laevskiĭ. *Ob otsenke pogreshnosti nekotorykh pryamykh algoritmov dekompozitsii oblasti bez naleganiya podoblastei resheniya parabolicheskikh uravnenii*, volume 955 of Preprint *[Preprint]*. Ross. Akad. Nauk Sibirsk. Otdel. Vychisl. Tsentr, Novosibirsk, USSR, 1992. 39 pp.

Laevskii:1992:PMD

[Lae92c] Yu. M. Laevskiĭ. *Pryamoi metod dekompozitsii oblasti resheniya parabolicheskikh uravnenii*, volume 946 of Preprint *[Preprint]*. Akad. Nauk SSSR Sibirsk. Otdel. Vychisl. Tsentr, Novosibirsk, USSR, 1992. 48 pp.

Laevskii:1993:DDP

[Lae93a] Yu. M. Laevskiĭ. Domain decomposition for parabolic problems with discontinuous solutions, and the penalty method. In *Computing methods and technology for solving problems in mathematical physics (Russian)*, pages 3–29. Ross. Akad. Nauk Sibirsk. Otdel. Vychisl. Tsentr, Novosibirsk, USSR, 1993.

Laevskii:1993:EID

[Lae93b] Yu. M. Laevskiĭ. Explicit-implicit domain decomposition method for solving parabolic equations. In *Computing methods and technology for solving problems in mathematical physics (Russian)*, pages 30–46. Ross. Akad. Nauk Sibirsk. Otdel. Vychisl. Tsentr, Novosibirsk, USSR, 1993.

Laevskii:1993:MKE

[Lae93c] Yu. M. Laevskiĭ. *Metod konechnykh elementov resheniya mnogomernykh parabolicheskikh uravnenii*. Novosibirsk. Gos. Univ., Novosibirsk, USSR, 1993. ISBN 5-230-13543-3. 104 pp.

Laevsky:1996:POG

[Lae96] Yu. M. Laevsky. Preconditioning operators for grid parabolic problems. *Russian journal of numerical analysis and mathematical modelling*, 11(6):497–515, 1996. CODEN RJNMEH. ISSN 0927-6467.

Laevskii:1998:MSG

[Lae98] Yu. M. Laevskiĭ. On methods for solving grid parabolic problems based on bordering of a matrix. *Sibirskii matematicheskii zhurnal*, 39(6):1322–1335, ii, 1998. ISSN 0037-4474.

Lagnese:1999:DDE

[Lag99a] J. E. Lagnese. Domain decomposition in exact controllability of second order hyperbolic systems on 1-d networks. *Control and cybernetics*, 28(3): 531–556, 1999. CODEN CCYBAP. ISSN 0324-8569. Recent advances in control of PDEs.

Lagnese:1999:DDO

[Lag99b] John E. Lagnese. Domain decomposition in optimal control of elliptic systems on 2-D networks. In *Control of distributed parameter and stochastic systems (Hangzhou, 1998)*, pages 63–70. Kluwer Academic Publishers, Norwell, MA, USA, and Dordrecht, The Netherlands, 1999.

Lai:1992:ATN

[Lai92] C. H. Lai. An acceleration technique for a nonoverlapped domain decomposition method. In *Computational and applied mathematics, I (Dublin, 1991)*, pages 289–293. North-Holland Publishing Co., Amsterdam, The Netherlands, 1992.

Lai:1993:DDM

[Lai93] C.-H. Lai. Domain decomposition methods for semiconductor device problems on a Cray S-MP. *The International Journal of Supercomputer Applications*, 7(4):337–348, Winter 1993. CODEN IJSAE9. ISSN 0890-2720.

Lai:1994:DDD

[Lai94a] C.-H. Lai. Diakoptics, domain decomposition and parallel computing. *The Computer Journal*, 37(10):840–846, ???? 1994. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://www3.oup.co.uk/computer_journal/Volume_37/Issue_10/Vol37_10.body.html#AbstractLai.`

Lai:1994:DDS

[Lai94b] C.-H. Lai. On domain decomposition and shooting methods for two-point boundary value problems. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 257–263. AMS, Providence, RI, USA, 1994.

Langer:1992:SSM

[Lan92] Ulrich Langer. Substrukturtechnik und Schwarzsche Methoden. *Mitt. Ges. Angew. Math. Mech.*, 15(2):86–103, 1992. ISSN 0936-7195.

Lapin:1989:MDO

[Lap89] A. V. Lapin. *Metod dekompozitsii oblasti dlya setochnoi approksimatsii dvukhfaznoi zadachi Stefana*, volume 856 of Preprint *[Preprint]*. Akad. Nauk SSSR Sibirsk. Otdel. Vychisl. Tsentr, Novosibirsk, USSR, 1989. 29 pp.

Larsson:1999:DDM

[Lar99] Elisabeth Larsson. A domain decomposition method for the Helmholtz equation in a multilayer domain. *SIAM Journal on Scientific Computing*, 20(5):1713–1731, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http:`

//epubs.siam.org/sam-bin/dbq/article/32532.

Layton:1992:DDM

[Lay92] William J. Layton. Domain decomposition for multidimensional, first order systems of partial differential equations. *Applicable Analysis*, 47(2–3):139–150, 1992. CODEN APANCC. ISSN 0003-6811.

Lions:1993:BVP

[LB93] J.-L. Lions and C. Baiocchi, editors. *Boundary value problems for partial differential equations and applications*, volume 29 of *RMA: Research Notes in Applied Mathematics*. Masson Editeur, Masson, France, 1993. ISBN 2-225-84334-1. xii + 460 pp. Dedicated to E. Magenes.

Lybeck:1994:DDS

[LB94] Nancy J. Lybeck and Kenneth L. Bowers. Domain decomposition via the sinc-Galerkin method for second order differential equations. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 271–276. AMS, Providence, RI, USA, 1994.

Lybeck:1996:SMD

[LB96] Nancy J. Lybeck and Kenneth L. Bowers. Sinc methods for domain decomposition. *Applied Mathematics and Computation*, 75(1):13–41, March 1, 1996. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL http://www.elsevier.com/cgi-bin/cas/tree/store/amc/cas_sub/browse/browse.cgi?year=1996&volume=75&issue=1&aid=9500099.

Leiva:2010:ISC

[LBB10] Jorge S. Leiva, Pablo J. Blanco, and Gustavo C. Buscaglia. Iterative strong coupling of dimensionally heterogeneous models. *International Journal for Numerical Methods in Engineering*, 81 (12):1558–1580, 2010. CODEN IJNMBH. ISSN 0029-5981.

Lai:1999:EIC

[LBCW99] Choi-Hong Lai, Petter E. Bjørstad, Mark Cross, and Olof Widlund, editors. *Eleventh International Conference on Domain Decomposition Methods*. DDM.org, Augsburg, 1999. Available electronically at http://www.ddm.org/DD11/index.html.

Linardakis:2008:ASG

[LC08] Leonidas Linardakis and Nikos Chrisochoides. Algorithm 870: A static geometric Medial Axis domain decomposition in 2D Euclidean space. *ACM Transactions on Mathematical Software*, 34(1):4:1–4:28, January 2008. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Loisel:2010:ODD

[LCG+10] S. Loisel, J. Côté, M. J. Gander, L. Laayouni, and A. Qaddouri. Optimized domain decomposition methods for the spherical Laplacian. *SIAM Journal on Numerical Analysis*, 48(2):524–551, ???? 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Liddell:1996:HCN

[LCHS96] Heather Mary Liddell, A. Colbrook, B. Hertzberger, and P. Sloot, editors. *High-performance computing and networking: international conference and exhibition, HPCN EUROPE 1966, Brussels, Belgium, April 15–19, 1996: proceedings*, volume 1067 of *Lecture notes in computer science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1996. ISBN 3-540-61142-8 (paperback). LCCN QA76.88 .H52 1996.

Chu:1993:CDD

[lCjZ93] De lin Chu and Fang jun Zhou. The convergence of a domain decomposition algorithm for parabolic problems. *Numer. Math. J. Chinese Univ. (English Ser.)*, 2(2):162–175, 1993. ISSN 1004-8979 (print), 2079-7338 (electronic).

Lin:2004:FEM

[LCO04] Ping Lin, Xianqiao Chen, and Ming Tze Ong. Finite element methods based on a new formulation for the non-stationary incompressible Navier–Stokes equations. *International Journal for Numerical Methods in Fluids*, 46 (12):1169–1180, 2004. CODEN IJNFDW. ISSN 0271-2091.

Lai:1997:DDT

[LCP97] C.-H. Lai, A. M. Cuffe, and K. A. Pericleous. A domain decomposition technique for viscous/inviscid coupling. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 485–492. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Cheng:2006:IMP

[lCS06] Xiao liang Cheng and Abdul Wasim Shaikh. Iterative methods for the Poisson equation in L-shape domain based on domain decomposition method. *Applied Mathematics and Computation*, 180 (1):393–400, September 1, 2006. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Lebedev:1986:CM

[Leb86] V. I. Lebedev. *Composition methods*. USSRAcademy of Sciences, Moscow, USSR, 1986. In Russian.

Lee:2000:OBD

[Lee00] Hyesuk Kwon Lee. An optimization-based domain

decomposition method for a nonlinear problem. *Applied Mathematics and Computation*, 113(1):23–42, July 1, 2000. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.elsevier.nl/gej-ng/10/9/12/87/21/22/abstract.html`; `http://www.elsevier.nl/gej-ng/10/9/12/87/21/22/article.pdf`.

Lee:2006:OBD

[Lee06] Jeehyun Lee. An optimization-based domain decomposition method for parabolic equations. *Applied Mathematics and Computation*, 175(2): 1644–1656, April 15, 2006. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Leugering:1998:DDO

[Leu98a] G. Leugering. Domain decomposition of optimal control problems for multi-link flexible structures. In *ENUMATH 97 (Heidelberg)*, pages 38–53. World Sci. Publ., River Edge, NJ, 1998.

Leugering:1998:DDD

[Leu98b] G. Leugering. Dynamic domain decomposition of optimal control problems for networks of Euler–Bernoulli beams. In *Control and partial differential equations (Marseille-Luminy, 1997)*, volume 4 of *ESAIM Proc.*, pages 223–233 (electronic). Soc. Math. Appl. Indust., Paris, France, 1998.

Leugering:1999:DDD

[Leu99] G. Leugering. Dynamic domain decomposition of optimal control problems for networks of strings and Timoshenko beams. *SIAM Journal on Control and Optimization*, 37(6):1649–1675, November 1999. CODEN SJCODC. ISSN 0363-0129 (print), 1095-7138 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/33198`.

Lee:1987:FPS

[LG87] Daeshik Lee and E. J. (Efstratios J.) Gallopoulos. Fast Poisson solver on irregular regions by boundary integral-based domain decomposition methods. Technical Report CSRD 687, University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, 1987. 4 pp.

Laevskii:1995:EID

[LG95a] Yu. M. Laevskiĭ and S. V. Gololobov. Explicit-implicit domain decomposition methods for the solution of parabolic equations. *Sibirskii matematicheskii zhurnal*, 36 (3):590–601, ii, 1995. ISSN 0037-4474.

Lippert:1995:FWB

[LG95b] L. Lippert and M. H. Gross. Fast wavelet based volume

rendering by accumulation of transparent texture maps. *Computer Graphics Forum*, 14 (3):C/431–C/443, September 1995. CODEN CGFODY. ISSN 0167-7055 (print), 1467-8659 (electronic).

Liu:2009:DDM

[LH09] Wei Liu and Feng Zhu Hu. A domain decomposition method for expanded mixed finite element approximations to solutions of nonlinear parabolic equations. *Math. Appl. (Wuhan)*, 22(3):670–675, 2009. ISSN 1001-9847.

Li:1997:DDM

[Li97] Zi-Cai Li. Domain decomposition methods to penalty combinations for singularity problem. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 73–81. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Li:2003:DPF

[Li03] Jing Li. A dual-primal FETI method for solving Stokes/Navier–Stokes equations. In *Domain decomposition methods in science and engineering*, pages 225–231 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Li:2006:DDC

[Li06] Chang Feng Li. Domain decomposition characteristic difference schemes for convection-diffusion parabolic problems. *Numer. Math. J. Chinese Univ.*, 28(4):346–357, 2006. ISSN 1000-081X.

Lions:1978:ISM

[Lio78] Pierre Louis Lions. Interprétation stochastique de la méthode alternée de Schwarz. (French) [The stochastic interpretation of the Schwarz alternating method]. *C. R. Acad. Sci. Paris*, 268:325–328, 1978.

Lions:1988:SAM

[Lio88] Pierre Louis Lions. On the Schwarz alternating method. I. In Roland Glowinski, Gene H. Golub, Gérard A. Meurant, and Jacques Périaux, editors, *First International Symposium on Domain Decomposition Methods for Partial Differential Equations (Paris, 1987)*, pages 1–42. SIAM, Philadelphia, PA, USA, 1988.

Lions:1989:SAM

[Lio89] Pierre Louis Lions. On the Schwarz alternating method. II. In Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Domain Decomposition Methods*. SIAM, Philadelphia, PA, USA, 1989.

Lions:1990:SAM

[Lio90] Pierre Louis Lions. On the Schwarz alternating method. III: A variant for nonoverlapping subdomains. In Tony F. Chan, Roland Glowinski, Jacques Périaux, and Olof

Widlund, editors, *Third International Symposium on Domain Decomposition Methods for Partial Differential Equations , held in Houston, Texas, March 20-22, 1989*. SIAM, Philadelphia, PA, USA, 1990.

Lions:1999:PAS

[Lio99] Jacques-Louis Lions. Parallel algorithms for the solution of variational inequalities. *Interfaces Free Bound.*, 1(1):3–16, 1999. ISSN 1463-9963.

Lions:2000:CIP

[Lio00] J. L. Lions. Complexity in industrial problems. Some remarks. In *Computational mathematics driven by industrial problems (Martina Franca, 1999)*, volume 1739 of *Lecture Notes in Math.*, pages 223–266. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000.

Lipitakis:1994:HER

[Lip94] Elias A. Lipitakis, editor. *Hellenic European research on mathematics and informatics '94. Vol. 1, 2.* Hellenic Mathematical Society, Athens, Greece, 1994.

Littlefield:1997:OOA

[Lit97] Arthur Irving Littlefield, III. An object-oriented approach to automated generation of challenge examinations using Ada 95. *ACM SIGADA Ada Letters*, 17(1):54–68, January/February 1997. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Liu:2009:NOD

[Liu09] Jing Gang Liu. Non-overlapping domain decomposition method based on the natural boundary reduction. *Gongcheng Shuxue Xuebao*, 26 (3):542–546, 2009. ISSN 1005-3085.

Li:2006:VDP

[LJ06a] Yujia Li and Jian-Ming Jin. A vector dual-primal finite element tearing and interconnecting method for solving 3-D large-scale electromagnetic problems. *IEEE Transactions on Antennas and Propagation*, 54(10):3000–3009, 2006. CODEN IETPAK. ISSN 0018-926X.

Lou:2006:NET

[LJ06b] Zheng Lou and Jian-Ming Jin. A new explicit time-domain finite-element method based on element-level decomposition. *IEEE Transactions on Antennas and Propagation*, 54 (10):2990–2999, 2006. CODEN IETPAK. ISSN 0018-926X.

Li:2007:FFW

[LJ07a] Yu-Jia Li and Jian-Ming Jin. Fast full-wave analysis of large-scale three-dimensional photonic crystal devices. *J. Opt. Soc. Amer. B Opt. Phys.*, 24(9):2406–2415, 2007. CODEN JOBPDE. ISSN 0740-3224.

Li:2007:NDP

[LJ07b] Yu-Jia Li and Jian-Ming Jin. A new dual-primal domain decomposition approach for finite element simulation of 3-D large-scale electromagnetic problems. *IEEE Transactions on Antennas and Propagation*, 55(10):2803–2810, 2007. CODEN IETPAK. ISSN 0018-926X.

Liu:1998:FEM

[LK98] Xiaojin Liu and Takashi Kako. Finite element method for Helmholtz equation and domain decomposition method. In *Proceedings of Third China–Japan Seminar on Numerical Mathematics (Dalian, 1997)*, pages 114–124. Science Press, Beijing, PRC, 1998.

Ling:2004:PRB

[LK04] Leevan Ling and E. J. Kansa. Preconditioning for radial basis functions with domain decomposition methods. *Mathematical and computer modelling*, 40(13):1413–1427 (2005), 2004. CODEN MCMOEG. ISSN 0895-7177 (print), 1872-9479 (electronic).

Laursen:2007:REM

[LKY07] Tod A. Laursen, Eui Joong Kim, and Bin Yang. Recent extensions of mortar-based contact formulations: lubrication modeling and parallel implementations. In *IUTAM Symposium on Computational Methods in Contact Mechanics*, volume 3 of *IUTAM Bookser.*, pages 123–146. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2007.

Lai:1988:FEU

[LL88] C. H. Lai and H. M. Liddell. Finite elements using long vectors of the DAP. *Parallel Computing*, 8(1–3):351–361, October 1988. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Liang:1989:NDD

[LL89] Guo Ping Liang and Ping Liang. Nonconforming domain decomposition with the hybrid finite element method. *Math. Numer. Sinica*, 11(3):323–332, 1989. ISSN 0254-7791.

Laevskii:1993:MDO

[LL93a] Yu. M. Laevskiĭ and S. A. Litvinenko. *O metode dekompozitsii oblasti s pokomponentnym rasshchepleniem resheniya parabolicheskikh uravnenii*, volume 991 of Preprint *[Preprint]*. Ross. Akad. Nauk Sibirsk. Otdel. Vychisl. Tsentr, Novosibirsk, USSR, 1993. ii + 37 pp.

Li:1993:DDM

[LL93b] Cui Hua Li and Kai Tai Li. The domain decomposition method for fracture problems. *Journal on Numerical Methods and Computer Applications*, 14(4):272–279, 1993. ISSN 1000-3266.

Li:1995:DDA

[LL95] Cui Hua Li and Kai Tai Li. Domain decomposition algorithms for incompressible fluid flows. *Xi'an Jiaotong Daxue Xuebao*, 29(6):121–126, 1995. CODEN HCTPDW. ISSN 0253-987X.

Li:1997:CAP

[LL97] Kaitai Li and Cuihua Li. Convergence analysis of parallel domain decomposition algorithm for Navier–Stokes equations. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 493–500. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Lagnese:2000:DDD

[LL00] J. E. Lagnese and G. Leugering. Dynamic domain decomposition in approximate and exact boundary control in problems of transmission for wave equations. *SIAM Journal on Control and Optimization*, 38(2):503–537, March 2000. CODEN SJCODC. ISSN 0363-0129 (print), 1095-7138 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/33353`.

Lapin:2001:NMC

[LL01] A. Lapin and E. Laitinen, editors. *Numerical methods for continuous casting and related problems*, volume 9 of Trudy Matematicheskogo Tsentra imeni N. I. Lobachevskogo *[Proceedings of the N. I. Lobachevskii Mathematical Center]*. Izdatel′stvo "DAS", Kazan′, 2001. ISBN 5-8185-0023-3.

Lagnese:2004:DDM

[LL04] John E. Lagnese and Günter Leugering. *Domain decomposition methods in optimal control of partial differential equations*, volume 148 of *International Series of Numerical Mathematics*. Birkhäuser Verlag, Basel, Switzerland, 2004. ISBN 3-7643-2194-6. xiv + 443 pp.

Li:2008:SSM

[LL08] Kai Tai Li and De Min Liu. The stream surface method and dimension split method for 3D viscous compressible flow in turbomachinery. *Acta Math. Appl. Sin.*, 31(3):397–418, 2008. ISSN 0254-3079.

Lunati:2009:OFM

[LL09] Ivan Lunati and Seong H. Lee. An operator formulation of the multiscale finite-volume method with correction function. *Multiscale Model. Simul.*, 8(1):96–109, 2009. ISSN 1540-3459 (print), 1540-3467 (electronic).

Li:2006:FDN

[LLL+06] Guangrui Li, Yanping Lin, Shijie Liu, Hongxing Rui, and Xiaozhong Yang. A finite difference non-overlapping nonmatching domain decomposi-

tion algorithm for heat equation. *Dyn. Contin. Discrete Impuls. Syst. Ser. B Appl. Algorithms*, 13(5):603–618, 2006. CODEN DCDIS4. ISSN 1492-8760.

Laitinen:2001:ADD

[LLP01] E. Laitinen, A. V. Lapin, and J. Pieskä. Asynchronous domain decomposition methods for dam and continuous casting problems. In *Numerical methods for continuous casting and related problems (Kazan, 2001)*, volume 9 of *Tr. Mat. Tsentra im. N. I. Lobachevskogo*, pages 31–47. Izdat. "DAS", Kazan′, 2001.

Laitinen:2003:ADD

[LLP03] E. Laitinen, A. Lapin, and J. Pieskä. Asynchronous domain decomposition methods for solving continuous casting problem. In *Domain decomposition methods in science and engineering*, pages 459–466 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Lapin:2008:LMB

[LLPJ08] Serguei Lapin, Alexander Lapin, Jacques Périaux, and Pierre-Marie Jacquart. A Lagrange multiplier based domain decomposition method for the solution of a wave problem with discontinuous coefficients. In *Partial differential equations*, volume 16 of *Comput. Methods Appl. Sci.*, pages 131–145. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Lu:1989:PAV

[LLS89] Tao Lü, Chin Bo Liem, and Tsi Min Shih. Parallel algorithms for variational inequalities based on domain decomposition. In *Mathematical sciences*, volume 32(2) of *Math. Sci. Res. Rep. IMS*, page 11. Acad. Sinica Inst. Math., Chengdu, PRC, 1989.

Lu:1991:PAV

[LLS91] Tao Lü, Chin Bo Liem, and Tsi Min Shih. Parallel algorithms for variational inequalities based on domain decomposition. *Systems Sci. Math. Sci.*, 4(4):341–348, 1991. CODEN SMASE2. ISSN 1000-9590.

Lions:1972:NBV

[LM72] Jacques-Louis Lions and Enrico Magenes. *Nonhomogeneous Boundary Value Problems and Applications*, volume I. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1972. ISBN 0-387-05363-8. LCCN QA3 .G75 v.181.

Lu:2006:FDD

[LM06] Gui Xia Lü and Fu Ming Ma. Finite difference domain decomposition algorithm for the two-dimensional heat equation. *Journal on Numerical Methods and Computer Applications*, 27(2):96–105, 2006. ISSN 1000-3266.

Lu:2007:FDD

[LM07] Gui Xia Lü and Fu Ming Ma. Finite difference domain decomposition algorithms on structured triangular mesh for a parabolic equation. *Numer. Math. J. Chinese Univ.*, 29(2): 133–145, 2007. ISSN 1000-081X.

Lube:2000:NNO

[LMM00] G. Lube, L. Müller, and H. Müller. A new non-overlapping domain decomposition method for stabilized finite element methods applied to the non-stationary Navier–Stokes equations. *Numerical Linear Algebra with Applications*, 7(6):449–472, September 2000. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic). URL `http://www3.interscience.wiley.com/cgi-bin/abstract/72516697/START; http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=72516697&PLACEBO=IE.pdf`.

Lube:1999:NOD

[LMO99] G. Lube, L. Müller, and F.-C. Otto. A non-overlapping DDM of Robin-Robin type for parabolic problems. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 298–305 (electronic). DDM.org, Augsburg, 1999.

Lube:2000:NOD

[LMO00] G. Lube, L. Müller, and F. C. Otto. A non-overlapping domain decomposition method for the advection-diffusion problem. *Computing*, 64(1):49–68, 2000. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://link.springer-ny.com/link/service/journals/00607/bibs/0064001/00640049.htm; http://link.springer-ny.com/link/service/journals/00607/papers/0064001/00640049.pdf`.

Layton:1994:RMH

[LMR94] W. Layton, J. Maubach, and P. Rabier. Robust methods for highly nonsymmetric problems. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 265–270. AMS, Providence, RI, USA, 1994.

Lappalainen:1984:PCN

[LNT84] V. Lappalainen, P. Neittaanmäki, and T. Tiihonen. Parallel computing in numerical solution procedures for partial differential equations. *Arkhimedes*, 36(2):73–84, 1984. CODEN AKMDA5. ISSN 0004-1920.

Loheac:1992:ABC

[Loh92] J.-P. Lohéac. Artificial boundary conditions for advection-

diffusion equations. In *Progress in partial differential equations: elliptic and parabolic problems (Pont-à-Mousson, 1991)*, volume 266 of *Pitman Res. Notes Math. Ser.*, pages 207–219. Longman Sci. Tech., Harlow, UK, 1992.

Lube:1998:NOD

[LOM98] G. Lube, F. C. Otto, and H. Müller. A non-overlapping domain decomposition method for parabolic initial-boundary value problems. *Applied Numerical Mathematics: Transactions of IMACS*, 28(2–4): 359–369, October 1, 1998. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.com/cas/tree/store/apnum/sub/1998/28/2-4/919.pdf`.

Lopez:1994:MVM

[Lop94] R. J. Lopez, editor. *Maple V: mathematics and its application: proceedings of the Maple Summer Workshop and Symposium, Rensselaer Polytechnic Institute, Troy, New York, August 9–13, 1994*. Birkhäuser Verlag, Basel, Switzerland, 1994. ISBN 0-8176-3791-5, 3-7643-3791-5. LCCN QA76.95.M36 1994.

Lou:1995:PIN

[Lou95] J. Z. Lou. A parallel incompressible Navier–Stokes solver with multigrid iterations. In Bailey et al. [BBG+95], pages 167–168. ISBN 0-89871-344-7. LCCN QA76.58.S55 1995.

Larriba-Pey:1994:APC

[LP94a] Josep-L Larriba-Pey. An analysis of the parallel computation of arbitrarily branched cable neuron models. Technical report SRC-TR-94-134, Supercomputing Research Center: IDA, Lanham, MD, USA, November 1, 1994. 6 pp.

Li:1994:IMP

[LP94b] P. Li and R. L. Peskin. Implementation of a mapping procedure for the domain decomposition for PDEs in Maple. In Lopez [Lop94], pages 46–54. ISBN 0-8176-3791-5, 3-7643-3791-5. LCCN QA76.95.M36 1994.

Lee:1995:RCB

[LP95] Chang-Ock Lee and Seymour V. Parter. On the rate of convergence of the $k \times k$ block, k-line iterative methods: $k \to \infty$. *Numerische Mathematik*, 71(1):59–90, July 1995. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.de/link/service/journals/00211/bibs/5071001/50710059.htm`; `http://science.springer.de/nmee/bibs/5071001/50710059.htm`.

Lions:1998:APP

[LP98a] Jacques-Louis Lions and Olivier Pironneau. Algorithmes parallèles pour la solution

de problèmes aux limites. (French) [Parallel algorithms for the solution of problems at their limits]. *Comptes Rendus des Séances de l'Académie des Sciences. Série I. Mathématique*, 327(11):947–952, 1998. CODEN CASMEI. ISSN 0764-4442 (print), 1778-3577 (electronic).

Lions:1998:CPS

[LP98b] Jacques-Louis Lions and Olivier Pironneau. Sur le contrôle parallèle des systèmes distribués. (French) [On the parallel control of distributed systems]. *Comptes Rendus des Séances de l'Académie des Sciences. Série I. Mathématique*, 327 (12):993–998, 1998. CODEN CASMEI. ISSN 0764-4442 (print), 1778-3577 (electronic).

Langer:2006:CFB

[LP06] Ulrich Langer and Clemens Pechstein. Coupled finite and boundary element tearing and interconnecting solvers for nonlinear potential problems. *Zeitschrift für Angewandte Mathematik und Mechanik*, 86 (12):915–931, 2006. CODEN ZAMMAX. ISSN 0044-2267 (print), 1521-4001 (electronic).

Lau:2007:MSM

[LP07] Stephen R. Lau and Richard H. Price. Multidomain spectral method for the helically reduced wave equation. *Journal of computational physics*, 227(2):1126–1161, 2007. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Laitinen:2000:MAI

[LPL00] E. Laitinen, J. Pieskä, and A. Lapin. Mesh approximation and iterative solution of the continuous casting problem. In *Numerical mathematics and advanced applications (Jyväskylä, 1999)*, pages 601–616. World Sci. Publ., River Edge, NJ, 2000.

Lemarchand:2002:MRM

[LPP02] Géraldine Lemarchand, Olivier Pironneau, and Elijah Polak. A mesh refinement method for optimization with DDM. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 421–427. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Laitinen:2002:CDD

[LPSL02] E. Laitinen, J. Pieskä, J. Saranen, and A. Lapin. Comparison of domain decomposition methods for solving continuous casting problem. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 413–420. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Layton:1995:PRP

[LR95] William J. Layton and Patrick J. Rabier. Peaceman–Rachford procedure and domain decomposition for finite element problems. *Numerical Linear Algebra with Applications*, 2 (4):363–393, 1995. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Louchart:2000:SID

[LR00] Olivier Louchart and Anthony Randriamampianina. A spectral iterative domain decomposition technique for the incompressible Navier–Stokes equations. *Applied Numerical Mathematics: Transactions of IMACS*, 33(1–4):233–240, May 2000. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.nl/gej-ng/29/17/21/61/27/49/abstract.html; http://www.elsevier.nl/gej-ng/29/17/21/61/27/49/article.pdf`.

Lambert:1997:PDM

[LRH97] Michael A. Lambert, Garry H. Rodrigue, and Dennis W. Hewett. Parallel DSDADI method for solution of the steady state diffusion equation. *Parallel Computing*, 23(13):2041–2065, December 15, 1997. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/parco/cas_sub/browse/browse.cgi?year=1997&volume=23&issue=13&aid=1223`.

LeTallec:1995:DDN

[LS95] Patrick Le Tallec and Taoufik Sassi. Domain decomposition with non-matching grids: Augmented Lagrangian approach. *Mathematics of Computation*, 64(212):1367–1396, October 1995. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Lhalouani:1998:MEF

[LS98] Khalid Lhalouani and Taoufik Sassi. Méthode d'éléments finis hybrides en décomposition de domaines pour des problèmes de contact unilatéral. (French) [Hybrid finite-element methods in the domain decomposition for unilateral-contact problems]. *Comptes Rendus des Séances de l'Académie des Sciences. Série I. Mathématique*, 327(10):901–905, 1998. CODEN CASMEI. ISSN 0764-4442 (print), 1778-3577 (electronic).

Li:2005:RTC

[LS05] Hongwei Li and Jiachang Sun. Robin transmission conditions for overlapping additive Schwarz method applied to linear elliptic problems. *Int. J. Numer. Anal. Model.*, 2 (suppl.):83–99, 2005. ISSN 1705-5105.

Lai:2009:DDM

[LS09] Ming-Jun Lai and Larry L. Schumaker. A domain decomposition method for computing bivariate spline fits of scattered data. *SIAM Journal on Numerical Analysis*, 47 (2):911–928, ???? 2009. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Lu:1989:SDD

[LSL89] Tao Lü, Tsi Min Shih, and Chin Bo Liem. A synchronous domain decomposition method with an estimate of convergence rate. In *Mathematical sciences*, volume 32(1) of *Math. Sci. Res. Rep. IMS*, page 8. Acad. Sinica Inst. Math., Chengdu, PRC, 1989.

Liem:1997:SEM

[LSL97] C. B. Liem, T. M. Shih, and T. Lu. Splitting extrapolation method for solving multidimensional problems in parallel. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 267–274. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Liao:2009:CEI

[LSS09a] HongLin Liao, HanSheng Shi, and ZhiZhong Sun. Corrected explicit-implicit domain decomposition algorithms for two-dimensional semilinear parabolic equations. *Sci. China Ser. A*, 52(11):2362–2388, 2009. ISSN 1006-9283.

Lin:2009:PPA

[LSS+09b] Paul T. Lin, John N. Shadid, Marzio Sala, Raymond S. Tuminaro, Gary L. Hennigan, and Robert J. Hoekstra. Performance of a parallel algebraic multilevel preconditioner for stabilized finite element semiconductor device modeling. *Journal of computational physics*, 228(17):6250–6267, 2009. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Lai:1993:SSD

[Lt93] C.-H. Lai and H. J. J. te Riele. Solving some 1-D semiconductor device problems on a matrix coprocessor using a domain decomposition method. *Supercomputer*, 10 (1):24–32, January 1993. CODEN SPCOEL. ISSN 0168-7875.

Lasser:2003:ODD

[LT03] Caroline Lasser and Andrea Toselli. An overlapping domain decomposition preconditioner for a class of discontinuous Galerkin approximations of advection-diffusion problems. *Mathematics of Computation*, 72(243):1215–1238, July 2003. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/journal-getitem?`

pii=S0025-5718-03-01484-4; http://www.ams.org/mcom/2003-72-243/S0025-5718-03-01484-4/S0025-5718-03-01484-4.dvi; http://www.ams.org/mcom/2003-72-243/S0025-5718-03-01484-4/S0025-5718-03-01484-4.pdf; http://www.ams.org/mcom/2003-72-243/S0025-5718-03-01484-4/S0025-5718-03-01484-4.ps; http://www.ams.org/mcom/2003-72-243/S0025-5718-03-01484-4/S0025-5718-03-01484-4.tex.

Li:2009:CAB

[LT09] Jing Li and Xuemin Tu. Convergence analysis of a balancing domain decomposition method for solving a class of indefinite linear systems. *Numerical Linear Algebra with Applications*, 16(9): 745–773, ???? 2009. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Lazarov:2001:IPD

[LTV01] Raytcho D. Lazarov, Stanimire Z. Tomov, and Panayot S. Vassilevski. Interior penalty discontinuous approximations of elliptic problems. *Computational Methods in Applied Mathematics*, 1(4):367–382, 2001. ISSN 1609-4840.

Lu:1992:DDMa

[Lü92a] Tao Lü. Domain decomposition methods—a new technique for solving partial differential equations. II. *Math. Practice Theory*, 2(??):59–69, 1992. CODEN SSHRE8. ISSN 1000-0984.

Lu:1992:DDMb

[Lü92b] Tao Lü. Domain decomposition methods—a new technique for solving partial differential equations. III. *Math. Practice Theory*, 3(??):43–58, 1992. CODEN SSHRE8. ISSN 1000-0984.

Lu:1992:DDMc

[Lü92c] Tao Lü. Domain decomposition methods—a new technique for solving partial differential equations. IV. *Math. Practice Theory*, 4(??):37–49, 1992. CODEN SSHRE8. ISSN 1000-0984.

Lucier:1988:PEM

[Luc88] B. J. Lucier. Performance evaluation for multiprocessors programmed using monitors. *ACM SIGMETRICS Performance Evaluation Review*, 16 (1):22–29, May 1988. CODEN ???? ISSN 0163-5999 (print), 1557-9484 (electronic).

Lui:1999:SAM

[Lui99] S. H. Lui. On Schwarz alternating methods for the incompressible Navier–Stokes equations in N dimensions. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 65–72 (electronic). DDM.org, Augsburg, 1999.

Lui:2003:NPN

[Lui03] S. H. Lui. Nonlinearly preconditioned Newton's method. In *Domain decomposition methods in science and engineering*, pages 95–105 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Lui:2009:LNO

[Lui09] S. H. Lui. A Lions nonoverlapping domain decomposition method for domains with an arbitrary interface. *IMA Journal of Numerical Analysis*, 29(2):332–349, April 2009. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL `http://imajna.oxfordjournals.org/cgi/content/abstract/29/2/332`; `http://imajna.oxfordjournals.org/cgi/reprint/29/2/332`.

Lumley:2001:FME

[Lum01] John L. Lumley, editor. *Fluid mechanics and the environment: dynamical approaches*, volume 566 of *Lecture Notes in Physics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001. ISBN 3-540-41475-4. A collection of research papers written in commemoration of the 60th birthday of Sidney Leibovich, Papers from the symposium held at Cornell University, Ithaca, NY, August 23–24, 1999.

Landriani:1990:MSC

[LV90] G. Sacchi Landriani and H. Vandeven. A multidomain spectral collocation method for the Stokes problem. *Numerische Mathematik*, 58(4): 441–464, 1990. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Lazarov:1988:SEP

[LVM88] R. D. Lazarov, P. S. Vassilevski, and S. D. Margenov. Solving elliptic problems by the domain decomposition method using preconditioning matrices derived by multilevel splittings of the finite element matrix. In *Supercomputing (Athens, 1987)*, volume 297 of *Lecture Notes in Comput. Sci.*, pages 826–835. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1988.

Lai:1998:BSM

[LW98] Ming-Jun Lai and Paul Wenston. Bivariate spline method for Navier–Stokes equations: domain decomposition technique. In *Approximation theory IX, Vol. 2 (Nashville, TN, 1998)*, Innov. Appl. Math., pages 153–160. Vanderbilt Univ. Press, Nashville, TN, 1998.

Lai:2000:SDD

[LW00] Ming-Jun Lai and Paul Wenston. On Schwarz's domain decomposition methods for elliptic boundary value prob-

lems. *Numerische Mathematik*, 84(3):475–495, January 2000. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer-ny.com/link/service/journals/00211/bibs/0084003/00840475.htm; http://link.springer-ny.com/link/service/journals/00211/papers/0084003/00840475.pdf`.

Lamichhane:2005:MFE

[LW05] Bishnu P. Lamichhane and Barbara I. Wohlmuth. Mortar finite elements with dual Lagrange multipliers: some applications. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 319–326. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Li:2006:BAI

[LW06] Jing Li and Olof Widlund. BDDC algorithms for incompressible Stokes equations. *SIAM Journal on Numerical Analysis*, 44(6):2432–2455, 2006. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Liu:2007:DQD

[LW07] Shu Ting Liu and Xiong Hua Wu. Differential quadrature domain decomposition method for 2-D singular perturbation problems. *Journal on Numerical Methods and Computer Applications*, 28(3):188–197, 2007. ISSN 1000-3266.

Li:2003:WAA

[LWT+03] Jian Ping Li, Victor Wickerhauser, Yuan Yan Tang, John Daugman, Lizhong Peng, and Jing Zhao, editors. *Wavelet analysis and its applications (WAA). Vol. 1, 2*. World Scientific Publishing Co. Inc., River Edge, NJ, USA, 2003. ISBN 981-238-342-5.

Lee:2003:SSC

[LXZ03] Young-Ju Lee, Jinchao Xu, and Ludmil Zikatanov. Successive subspace correction method for singular system of equations. In *Domain decomposition methods in science and engineering*, pages 315–321 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Lukshin:1998:DDM

[LY98] A. V. Lukshin and L. V. Yarchuk. A domain decomposition method for the Boltzmann equation. *Differ. Uravn.*, 34(7):958–964, 1007, 1998. ISSN 0374-0641.

Li:2007:DDU

[LY07] Chang Feng Li and Yi Rang Yuan. Domain decomposition upwind difference schemes for multidimensional parabolic problems. *Acta Math. Sci. Ser. A Chin. Ed.*, 27(5):879–889, 2007. CODEN SWXUFO. ISSN 1003-3998.

Li:2008:DDC

[LY08] Changfeng Li and Yirang Yuan. Domain decomposition with characteristic finite difference method for two-phase displacement problems. *Applied Numerical Mathematics: Transactions of IMACS*, 58(9):1262–1273, September 2008. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Li:2009:MUD

[LY09] Changfeng Li and Yirang Yuan. A modified upwind difference domain decomposition method for convection–diffusion equations. *Applied Numerical Mathematics: Transactions of IMACS*, 59 (7):1584–1598, July 2009. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Lerner:2007:CSI

[LYK07] Boaz Lerner, Josepha Yeshaya, and Lev Koushnir. On the classification of a small imbalanced cytogenetic image database. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 4 (2):204–215, April 2007. CODEN ITCBCY. ISSN 1545-5963 (print), 1557-9964 (electronic).

Li:2000:BEM

[LZ00] Kai Hai Li and Jia Lin Zhu. Boundary element methods with domain decomposition for elastodynamics. *Journal on Numerical Methods and Computer Applications*, 21(4): 276–286, 2000. ISSN 1000-3266.

Ma:1996:PPC

[Ma96] Sangback Ma. A partial proof of the convergence of the block-ADI preconditioner. *Commun. Korean Math. Soc.*, 11(2):495–501, 1996. ISSN 1225-1763.

Mandel:1989:EDD

[Man89a] Jan Mandel. Efficient domain decomposition preconditioning for the p-version finite element method in three dimensions. Technical report, Computational Mathematics Group, University of Colorado at Denver, 1989.

Mandel:1989:BDS

[Man89b] Jan Mandel. On block diagonal and Schur complement preconditioning. Technical report, Computational Mathematics Group, University of Colorado at Denver, November 1989.

Mandel:1990:HPP

[Man90a] Jan Mandel. Hierarchical preconditioning and partial orthogonalization for the p-version finite element method. In Tony F. Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Third International Symposium on Domain Decomposi-*

tion Methods for Partial Differential Equations, held in Houston, Texas, March 20-22, 1989. SIAM, Philadelphia, PA, USA, 1990.

Mandel:1990:ISS

[Man90b] Jan Mandel. Iterative solvers by substructuring for the p-version finite element method. *Comput. Meth. Appl. Mech. Engin.*, 80:117–128, 1990.

Mandel:1990:TLD

[Man90c] Jan Mandel. Two-level domain decomposition preconditioning for the p-version finite element version in three dimensions. *International J. Numer. Methods Engineering*, 29: 1095–1108, 1990.

Mansfield:1990:CGS

[Man90d] Lois Mansfield. On the conjugate gradient solution of the Schur complement system obtained from domain decomposition. *SIAM Journal on Numerical Analysis*, 27(6):1612–1620, December 1990. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Mandel:1992:AIS

[Man92a] Jan Mandel. Adaptive iterative solvers in finite elements. In M. Papadrakakis, editor, *Solving Large Scale Problems in Mechanics. The Development and Application of Computational Solution Methods*. John Wiley and Sons, Ltd., New York, London, Sydney, 1992. To appear.

Mandel:1992:BDDa

[Man92b] Jan Mandel. Balancing domain decomposition. Technical report, Computational Mathematics Group, University of Colorado at Denver, 1992. Communications in Applied Numerical Methods, to appear.

Mandel:1992:ISP

[Man92c] Jan Mandel. Iterative solvers for p-version finite element method in three dimensions. In preparation; paper presented at ICOSAHOM 92, Montpellier, France, June 1992, 1992.

Mandel:1993:HDD

[Man93] Jan Mandel. Hybrid domain decomposition with unstructured subdomains. In Alfio Quarteroni, editor, *Sixth Conference on Domain Decomposition Methods for Partial Differential Equations*. AMS, Providence, RI, USA, 1993. Held in Como, Italy, June 15–19,1992. To appear.

Mandel:2003:ISL

[Man03] Jan Mandel. Iterative substructuring with Lagrange multipliers for coupled fluid-solid scattering. In *Domain decomposition methods in science and engineering*, pages 107–117 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Manservisi:2006:NAV

[Man06] S. Manservisi. Numerical analysis of Vanka-type solvers for steady Stokes and Navier–Stokes flows. *SIAM Journal on Numerical Analysis*, 44(5): 2025–2056 (electronic), 2006. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Marchuk:1989:DDM

[Mar89a] G. I. Marchuk, editor. *Domain decomposition methods*. VSP, Zeist, The Netherlands, 1989. ISSN 0169-2895. 431–533 pp. Selected translations, Soviet J. Numer. Anal. Math. Modelling **4** (1989), no. 6.

Marchuk:1989:MVM

[Mar89b] G. I. Marchuk. *Metody vychislitelnoi matematiki*. Nauka, Moscow, Russia, third edition, 1989. ISBN 5-02-014222-0. 608 pp.

Marchuk:1991:VPS

[Mar91] G. I. Marchuk, editor. *Vychislitelnye protsessy i sistemy. Vyp. 8*. Nauka, Moscow, Russia, 1991. ISBN 5-02-014291-3. 382 pp.

Marcinkowski:2001:DDM

[Mar01] Leszek Marcinkowski. Domain decomposition methods for mortar finite element discretizations of plate problems. *SIAM Journal on Numerical Analysis*, 39(4):1097–1114, August 2001. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/37119`.

Martin:2005:SWR

[Mar05] Véronique Martin. Schwarz waveform relaxation method for the viscous shallow water equations. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 653–660. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Marcinkowski:2007:ASM

[Mar07] Leszek Marcinkowski. An additive Schwarz method for mortar Morley finite element discretizations of 4th order elliptic problem in 2D. *Electronic Transactions on Numerical Analysis*, 26:34–54, 2007. ISSN 1068-9613 (print), 1097-4067 (electronic).

Mastin:1987:IFD

[Mas87] C. Wayne Mastin. Implicit finite difference methods on composite grids. In *Proceedings of the 2nd international conference on computational and applied mathematics (Leuven, 1986)*, volume 20 (special issue) of *Journal of Computational and Applied Mathematics*, pages 317–323. Elsevier, Amsterdam, The Netherlands, 1987. CODEN JCAMDI.

ISSN 0377-0427 (print), 1879-1778 (electronic).

Mathew:1989:DDI

[Mat89] Tarek P. Mathew. *Domain Decomposition and Iterative Refinement Methods for Mixed Finite Element Discretisations of Elliptic Problems*. PhD thesis, Courant Institute of Mathematical Sciences, September 1989. Tech. Rep. 463, Department of Computer Science, Courant Institute.

Mathew:1993:SAIa

[Mat93a] Tarek P. Mathew. Schwarz alternating and iterative refinement methods for mixed formulations of elliptic problems, Part I: Algorithms and numerical results. *Numerische Mathematik*, 1993. To appear.

Mathew:1993:SAIb

[Mat93b] Tarek P. Mathew. Schwarz alternating and iterative refinement methods for mixed formulations of elliptic problems, Part II: Theory. *Numerische Mathematik*, 1993. To appear.

Mandel:1992:BDDb

[MB92] Jan Mandel and Marian Brezina. Balancing domain decomposition: Theory and computations in two and three dimensions. Technical report, Computational Mathematics Group, University of Colorado at Denver, 1992. Submitted to Math. Comp.

Mehrabi:1994:FEN

[MB94] M. Reza Mehrabi and Robert A. Brown. Finite-element/Newton method for solution of nonlinear problems in transport processes using domain decomposition and nested dissection on MIMD parallel computers. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 413–425. AMS, Providence, RI, USA, 1994.

Mandel:1996:BDD

[MB96] Jan Mandel and Marian Brezina. Balancing domain decomposition for problems with large jumps in coefficients. *Mathematics of Computation*, 65(216):1387–1401, October 1996. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/jourcgi/jour-pbprocess?fn=110&arg1=S0025-5718-96-00757-0&u=/mcom/1996-65-216/`.

Ma:1997:CMO

[MC97] Liming Ma and Qianshun Chang. Compensation method of an optimal-order Wilson nonconforming multigrid. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 221–226. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Marcinkowski:2005:PPS

[MC05a] Leszek Marcinkowski and Xiao-Chuan Cai. Parallel performance of some two-level ASPIN algorithms. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 639–646. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Mihai:2005:TGA

[MC05b] L. Angela Mihai and Alan W. Craig. A two-grid alternate strip-based domain decomposition strategy in two-dimensions. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 661–668. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

McCormick:1984:FAC

[McC84] Steve McCormick. Fast adaptive composite grid (FAC) methods. In K. Böhmer and H. J. Stetter, editors, *Defect Correction Methods: Theory and Applications*, pages 115–121. Computing Supplementum 5, Springer-Verlag, Berlin, 1984.

McCormick:1989:MAM

[McC89a] Stephen F. McCormick. *Multilevel Adaptive Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1989. ISBN 0-89871-247-5. ix + 162 pp. LCCN QA377 .M32 1989.

McCormick:1989:MAS

[McC89b] Steve McCormick. Multilevel adaptive schemes and domain decomposition methods. In *Proceedings of the Fifth International Symposium on Numerical Methods in Engineering, Vol. 1, 2 (Lausanne, 1989)*, pages 245–252. Comput. Mech., Southampton, UK, 1989.

Marsden:2002:DDU

[MCL02] R. H. Marsden, T. N. Croft, and C.-H. Lai. Domain decomposition using a 2-level correction scheme. *Lecture Notes in Computer Science*, 2330:480–489, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2330/23300480.htm; http://link.springer-ny.com/link/service/series/0558/papers/2330/23300480.pdf`.

Mandel:2003:CBD

[MD03] Jan Mandel and Clark R. Dohrmann. Convergence of a balancing domain decomposition by constraints and energy minimization. *Numerical Linear Algebra with Applications*, 10(7):639–659, Octo-

ber/November 2003. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Marcinkowski:2008:FDM

[MD08] Leszek Marcinkowski and Nina Dokeva. A FETI-DP method for mortar finite element discretization of a fourth order problem. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 583–590. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Mai-Duy:2008:EHO

[MDTC08] N. Mai-Duy and T. Tran-Cong. An effective high-order point-collocation numerical approach based on integrated approximants for elliptic differential equations. In *Leading-edge applied mathematical modeling research*, pages 215–250. Nova Sci. Publ., New York, NY, USA, 2008.

Mejzlik:1994:BMF

[Mej94] Petr Mejzlík. A bisection method to find all solutions of a system of nonlinear equations. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 277–282. AMS, Providence, RI, USA, 1994.

Meurant:1988:DDM

[Meu88a] G. Meurant. Domain decomposition methods for partial differential equations on parallel computers. *The International Journal of Supercomputer Applications*, 2(4):5–12, Winter 1988. CODEN IJSAE9. ISSN 0890-2720.

Meurant:1988:DDP

[Meu88b] G. Meurant. Domain decomposition preconditioners for the conjugate gradient method. *Calcolo*, 25(1–2):103–119, 1988. CODEN CDABAE. ISSN 0008-0624 (print), 1126-5434 (electronic).

Meurant:1989:DDM

[Meu89] Gérard Meurant. Domain decomposition methods for partial differential equations on parallel computers. In *Vector and parallel computing (Tromsø, 1988)*, Ellis Horwood Ser. Comput. Appl., pages 241–253. Horwood, Chichester, UK, 1989.

Meurant:1991:DDM

[Meu91a] Gérard A. Meurant. A domain decomposition method for parabolic problems. *Applied Numerical Mathematics: Transactions of IMACS*, 8(4–5):427–441, November 1991. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Meurant:1991:NED

[Meu91b] Gérard A. Meurant. Numerical experiments with a domain decomposition method for parabolic problems on parallel computers. In Roland Glowinski, Yuri A. Kuznetsov, Gérard A. Meurant, Jacques Périaux, and Olof Widlund, editors, *Fourth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1991.

Meyer:1990:PPC

[Mey90] A. Meyer. A parallel preconditioned conjugate gradient method using domain decomposition and inexact solvers on each subdomain. *Computing*, 45(3):217–234, 1990. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Meddahi:1991:DDM

[MG91] S. Meddahi and F. Gaspar. A domain-decomposition method for a linear parabolic problem. In *Proceedings of the XII Congress on Differential Equations and Applications/II Congress on Applied Mathematics (Spanish) (Oviedo, 1991)*, pages 251–256. Universidad de Oviedo, Oviedo, Spain, 1991.

Min:2005:DDS

[MG05] M. S. Min and D. Gottlieb. Domain decomposition spectral approximations for an eigenvalue problem with a piecewise constant coefficient. *SIAM Journal on Numerical Analysis*, 43(2):502–520, April 2005. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/42383`.

Mahjoubi:2009:CSH

[MGC09] Najib Mahjoubi, Anthony Gravouil, and Alain Combescure. Coupling subdomains with heterogeneous time integrators and incompatible time steps. *Computational mechanics*, 44(6):825–843, 2009. CODEN CMMEEE. ISSN 0178-7675.

Miellou:1991:SDM

[MGLS91] J.-C. Miellou, L. Giraud, A. Laouar, and P. Spiteri. Subdomain decomposition methods with overlapping and asynchronous iterations. In *Progress in partial differential equations: the Metz surveys*, volume 249 of *Pitman Res. Notes Math. Ser.*, pages 166–183. Longman Sci. Tech., Harlow, UK, 1991.

Mokhtarzadeh:2005:SIM

[MGMC05] M. R. Mokhtarzadeh, A. Golbabaee, R. Mokhtary, and N. G. Chegini. Suitable iterative methods for solving the linear system arising in the three fields domain decomposition method. *Applied Mathematics and Computation*, 170

(2):741–751, November 15, 2005. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Mierendorff:1988:PMM

[Mie88] Hermann Mierendorff. Parallelization of multigrid methods with local refinements for a class of nonshared memory systems. In *Multigrid methods (Copper Mountain, CO, 1987)*, volume 110 of *Lecture Notes in Pure and Appl. Math.*, pages 449–465. Dekker, New York, NY, USA, 1988.

Miller:1993:AAC

[Mil93] J. J. H. Miller, editor. *Applications of advanced computational methods for boundary and interior layers*. Advanced Computational Methods for Boundary and Interior Layers, 2. Boole Press, Dublin, Ireland, 1993. ISBN 1-85748-001-5; 1-85748-002-3. viii + 215 pp.

Milyukova:2000:PIM

[Mil00] O. Yu. Milyukova. A parallel iterative method with a factorized preconditioning matrix for solving elliptic equations. *Differ. Uravn.*, 36(7):953–962, 1006, 2000. ISSN 0374-0641.

Mikhailov:2002:ICC

[MIL02] Gennadi A. Mikhailov, Valeri P. Il′in, and Yuri M. Laevsky, editors. *International Conference on Computational Mathematics. Part I, II.* ICM&MG Publisher, Novosibirsk, 2002. ISBN 5-901548-10-8.

Mishev:1994:PCC

[Mis94] Ilya D. Mishev. Preconditioning cell-centered finite difference equations on grids with local refinement. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 283–288. AMS, Providence, RI, USA, 1994.

McManus:1999:CLH

[MJC99] Kevin McManus, Steve Johnson, and Mark Cross. Communication latency hiding in a parallel conjugate gradient method. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 306–313 (electronic). DDM.org, Augsburg, 1999.

Marchuk:1986:FDD

[MKM86] G. I. Marchuk, Yu. A. Kuznetsov, and A. M. Matsokin. Fictitious domain and domain decomposition methods. *Soviet J. Numer. Anal. Math. Modelling*, 1(1):3–61, 1986. ISSN 0169-2895.

Markus:1996:PEM

[MKP+96] S. Markus, S. B. Kim, K. Pantazopoulos, A. L. Ocken, E. N. Houstis, P. Wu, S. Weerawarana, and D. Maharry. Performance evaluation of

MPI implementations and MPI based Parallel ELLPACK solvers. In IEEE [IEE96], pages 162–169. ISBN 0-8186-7533-0. LCCN QA76.642 .M67 1996.

Mandel:1991:DDP

[ML91] Jan Mandel and G. Scott Lett. Domain decomposition preconditioning for p-version finite elements with high aspect ratios. *Applied Numerical Mathematics: Transactions of IMACS*, 8(4–5):411–425, 1991. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Morlet:1997:SAS

[MLB97] Anne C. Morlet, Nancy J. Lybeck, and Kenneth L. Bowers. The Schwarz alternating sinc domain decomposition method. *Applied Numerical Mathematics: Transactions of IMACS*, 25(4):461–483, November 10, 1997. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/apnum/cas_sub/browse/browse.cgi?year=1997&volume=25&issue=4&aid=824`.

Morlet:1999:CSO

[MLB99] Anne C. Morlet, Nancy J. Lybeck, and Kenneth L. Bowers. Convergence of the sinc overlapping domain decomposition method. *Applied Mathematics and Computation*, 98 (2–3):209–227, February 1, 1999. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.elsevier.com/cas/tree/store/amc/sub/1999/98/2-3/6169.pdf; http://www.elsevier.com/cgi-bin/cas/tree/store/amc/cas_sub/browse/browse.cgi?year=1999&volume=98&issue=2-3&aid=6169`.

Mandel:1989:ISEb

[MM89a] Jan Mandel and Steve McCormick. Iterative solution of elliptic equations with refinement: The model multi-level case. In Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Domain Decomposition Methods*. SIAM, Philadelphia, PA, USA, 1989.

Mandel:1989:ISEa

[MM89b] Jan Mandel and Steve McCormick. Iterative solution of elliptic equations with refinement: The two-level case. In Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Domain Decomposition Methods*. SIAM, Philadelphia, PA, USA, 1989.

mongaMade:2004:PPI

[mM04] M. Magolu monga Made. Performance of parallel incomplete $\mathrm{LDL}^{\mathsf{t}}$ factorizations for solving acoustic wave propagation problems from industry. *Numerical Linear Alge-*

bra with Applications, 11(8–9):813–830, 2004. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Mokhtarzadeh:2006:BCE

[MMC06] M. R. Mokhtarzadeh, R. Mokhtary, and N. G. Chegini. Bi-CG: An effective solver for three fields domain decomposition method in parallel environments. *Applied Mathematics and Computation*, 174(2): 1196–1205, March 15, 2006. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Manley:1990:PTE

[MMO90] John Manley, Sean McKee, and David Owens, editors. *Proceedings of the Third European Conference on Mathematics in Industry*, volume 5 of *European Consortium for Mathematics in Industry*. Teubner, Stuttgart, Germany; Leipzig, Germany, 1990. ISBN 3-519-02174-9; 0-7923-0807-7. Held in Glasgow, August 28–31, 1988.

Martikainen:2002:PLE

[MMRT02] J. Martikainen, R. A. E. Mäkinen, T. Rossi, and J. Toivanen. A preconditioner for linear elasticity problems. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 429–436. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Matsokin:1985:SAM

[MN85] A. M. Matsokin and S. V. Nepomnyaschikh. A Schwarz alternating method in a subspace. *Soviet Mathematics*, 29 (10):78–84, 1985.

Matsokin:1988:NST

[MN88] A. M. Matsokin and S. V. Nepomnyaschikh. Norms in the space of traces of mesh functions. *Soviet J. Numer. Anal. Math. Modelling*, 3(3): 199–216, 1988. ISSN 0169-2895.

Matsokin:1989:UBM

[MN89] A. M. Matsokin and S. V. Nepomnyaschikh. On using the bordering method for solving systems of mesh equations. *Soviet J. Numer. Anal. Math. Modelling*, 4(6):487–492, 1989. ISSN 0169-2895. Domain decomposition methods.

Mehl:2008:CEI

[MNW08] Miriam Mehl, Tobias Neckel, and Tobias Weinzierl. Concepts for an efficient implementation of domain decomposition approaches for fluid-structure interactions. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 591–598. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Morgan:1993:FEF

[MOP+93] K. Morgan, E. Oñate, J. Périaux, J. Peraire, and O. C. Zienkiewicz, editors. *Finite elements in fluids. Part I, II*. Centro Internacional de Métodos Numéricos en Ingenierí a, Barcelona, Spain, 1993. ISBN 84-87867-29-4. New trends and applications.

Morgenstern:1956:BAV

[Mor56] D. Morgenstern. Begründung des alternierenden Verfahrens durch Orthogonalprojektion. (German) [Basis of the alternating procedure for orthogonal projection]. *ZAMM*, 36: 7–8, 1956.

Morton:1990:TIC

[Mor90] K. W. Morton, editor. *Twelfth International Conference on Numerical Methods in Fluid Dynamics*, volume 371 of *Lecture Notes in Physics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1990. ISBN 3-540-53619-1.

Munteanu:2008:OAS

[MP08] Marilena Munteanu and Luca F. Pavarino. An overlapping additive Schwarz–Richardson method for monotone nonlinear parabolic problems. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 599–606. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Munteanu:2009:DSA

[MP09] Marilena Munteanu and Luca F. Pavarino. Decoupled Schwarz algorithms for implicit discretizations of nonlinear monodomain and bidomain systems. *Mathematical models and methods in applied sciences*, 19(7):1065–1097, 2009. CODEN MMMSEU. ISSN 0218-2025.

Mathew:1998:DDO

[MPRW98] T. P. Mathew, P. L. Polyakov, G. Russo, and J. Wang. Domain decomposition operator splittings for the solution of parabolic equations. *SIAM Journal on Scientific Computing*, 19(3):912–932, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/28820`.

Miellou:1986:IMP

[MPS86] J.-C. Miellou, G.-R. Perrin, and P. Spiteri. Inexpensive method of performance evaluation for subdomain decomposition parallel algorithms of three-dimensional elliptical problems. *The Journal of Systems and Software*, 6(1–2): 169–173, May 1986. CODEN JSSODM. ISSN 0164-1212 (print), 1873-1228 (electronic).

Miglio:2005:MSF

[MPS05] Edie Miglio, Simona Perotto, and Fausto Saleri. A multiphysics strategy for free surface flows. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 395–402. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Marini:1988:IPD

[MQ88] L. D. Marini and A. Quarteroni. An iterative procedure for domain decomposition methods: a finite element approach. In *First International Symposium on Domain Decomposition Methods for Partial Differential Equations (Paris, 1987)*, pages 129–143. SIAM, Philadelphia, PA, USA, 1988.

Marini:1989:RPD

[MQ89] L. D. Marini and A. Quarteroni. A relaxation procedure for domain decomposition methods using finite elements. *Numerische Mathematik*, 55(5):575–598, August 1989. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Marinescu:1988:NAL

[MR88] D. C. Marinescu and John R. Rice. Non-algorithmic load imbalance effects for domain decomposition methods on a hypercube. Technical report TR-832, Department of Computer Science, Purdue University, West Lafayette, IN 47907-2107, USA, December 1988. 25 pp. URL `http://www.cs.purdue.edu/research/technical_reports/1988/TR%2088-832.pdf`.

Mu:1992:PDD

[MR92] M. Mu and John R. Rice. Preconditioning for domain decomposition through function approximation. Technical report TR-92-091, Department of Computer Science, Purdue University, West Lafayette, IN 47907-2107, USA, November 1992. 18 pp. URL `http://www.cs.purdue.edu/research/technical_reports/1992/TR%2092-091.pdf`.

Mu:1994:MCP

[MR94a] Mo Mu and John R. Rice. Modeling with collaborating PDE solvers: theory and practice. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 427–438. AMS, Providence, RI, USA, 1994.

Mu:1994:PDD

[MR94b] Mo Mu and John R. Rice. Preconditioning for domain decomposition through function approximation. *SIAM Journal on Scientific Comput-*

ing, 15(6):1452–1466, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Marques:1995:TAM

[MR95] Manuel D. P. Monteiro Marques and José Francisco Rodrigues, editors. *Trends in applications of mathematics to mechanics*, volume 77 of *Pitman Monographs and Surveys in Pure and Applied Mathematics*. Longman, Harlow, UK, 1995. ISBN 0-582-24874-4. Papers from the 9th Symposium (STAMM-94) held at Lisbon University, Lisbon, July 1994.

Mateescu:1999:ISP

[MR99] Gabriel Mateescu and Calvin J. Ribbens. An iterative substructuring preconditioner for collocation with Hermite bicubics. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 73–81 (electronic). DDM.org, Augsburg, 1999.

Maday:2004:RBE

[MR04] Yvon Maday and Einar M. Rønquist. The reduced basis element method: application to a thermal fin problem. *SIAM Journal on Scientific Computing*, 26(1):240–258 (electronic), 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mroz:1989:DDM

[Mró89] Monika Mróz. Domain decomposition method for elliptic mixed boundary value problems. *Computing*, 42(1):45–59, 1989. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Mroz:1997:DDM

[Mró97] Monika Mróz. Domain decomposition methods with strip substructures. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 83–90. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Magoules:2004:ODT

[MRS04] Frédéric Magoulès, François-Xavier Roux, and Stéphanie Salmon. Optimal discrete transmission conditions for a nonoverlapping domain decomposition method for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 25(5):1497–1515, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/41535`.

Morandi:1990:CMI

[MS90] R. Morandi and A. Sestini. Cray Y-MP/432 implementation of a domain decomposition method. *Supercomputer*, 7(6):27–33, November 1990. CODEN SPCOEL. ISSN 0168-7875.

Mullen:2002:UDN

[MS02] Helen Mac Mullen and Grigorii I. Shishkin. An ϵ-uniform discrete non-overlapping domain decomposition method for a singularly perturbed convection-diffusion problem. In *International Conference on Computational Mathematics. Part I, II*, pages 643–648. ICM&MG Pub., Novosibirsk, 2002.

Marek:2005:AAS

[MS05a] Ivo Marek and Daniel B. Szyld. Algebraic analysis of Schwarz methods for singular systems. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 647–652. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

McGee:2005:NCF

[MS05b] Wayne McGee and Padmanabhan Seshaiyer. Nonconforming finite element methods for nonmatching grids in three dimensions. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 327–334. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Mandel:2007:BFD

[MS07] J. Mandel and B. Sousedík. BDDC and FETI-DP under minimalist assumptions. *Computing*, 81(4):269–280, December 2007. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=81&issue=4&spage=269`.

Ma:2010:GDD

[MS10] Keying Ma and Tongjun Sun. Galerkin domain decomposition procedures for parabolic equations on rectangular domain. *International Journal for Numerical Methods in Fluids*, 62(4):449–472, 2010. CODEN IJNFDW. ISSN 0271-2091.

Marrocu:1998:PPM

[MSM98] M. Marrocu, R. Scardovelli, and P. Malguzzi. Parallelization and performance of a meteorological limited area model. *Parallel Computing*, 24(5–6):911–922, June 1, 1998. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cas/tree/store/parco/sub/1998/24/5-6/1309.pdf`.

Maischak:1996:DDM

[MST96] Matthias Maischak, Ernst P. Stephan, and Thanh Tran. Domain decomposition methods for boundary integral equations of the first kind:

numerical results. *Applicable Analysis*, 63(1–2):111–132, 1996. CODEN APANCC. ISSN 0003-6811.

Mirin:1998:EFT

[MSW98] A. A. Mirin, D. E. Shumaker, and M. F. Wehner. Efficient filtering techniques for finite-difference atmospheric general circulation models on parallel processors. *Parallel Computing*, 24(5–6):729–740, June 1, 1998. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cas/tree/store/parco/sub/1998/24/5-6/1289.pdf`.

Ma:2009:PGD

[MSY09] Keying Ma, Tongjun Sun, and Danping Yang. Parallel Galerkin domain decomposition procedures for parabolic equation on general domain. *Numerical Methods for Partial Differential Equations*, 25 (5):1167–1194, 2009. CODEN NMPDEB. ISSN 0749-159X.

McCormick:1986:FAC

[MT86a] S. F. McCormick and J. W. Thomas. The fast adaptive composite grid (FAC) method for elliptic equations. *Mathematics of Computation*, 46(174):439–456, April 1986. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Miki:1986:NSP

[MT86b] Kazuyoshi Miki and Toshiyuki Takagi. Numerical solution of Poisson's equation with arbitrarily shaped boundaries using a domain decomposition and overlapping technique. *Journal of computational physics*, 67(2):263–278, December 1986. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0021999186902627`.

Maday:2005:PTI

[MT05] Yvon Maday and Gabriel Turinici. The parareal in time iterative solver: a further direction to parallel implementation. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 441–448. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Mu:1995:NFP

[Mu95] Mo Mu. A new family of preconditioners for domain decomposition. *SIAM Journal on Scientific Computing*, 16 (2):289–306, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Murio:1997:BRE

[Mur97] Diego A. Murio. Book review: *Elliptic Marching Meth-*

ods for Domain Decomposition, by Patrick J. Roache. *SIAM Review*, 39(2):354–355, June 1997. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Murea:1998:DDM

[Mur98] Cornel Marius Murea. Domain decomposition method for a flow through two porous media. *Bull. Math. Soc. Sci. Math. Roumanie (N.S.)*, 41(89)(4):257–265, 1998. ISSN 1220-3874.

Made:2001:GDD

[MvdV01] M. Magolu monga Made and H. A. van der Vorst. A generalized domain decomposition paradigm for parallel incomplete LU factorization preconditionings. *Future Generation Computer Systems*, 17(8):925–932, June 2001. CODEN FGSEVI. ISSN 0167-739X (print), 1872-7115 (electronic). URL `http://www.elsevier.com/gej-ng/10/19/19/45/35/28/abstract.html`.

Mair:2004:DDM

[MW04] M. Mair and B. I. Wohlmuth. A domain decomposition method for domains with holes using a complementary decomposition. *Computer Methods in Applied Mechanics and Engineering*, 193(45–47):4961–4978, 2004. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Minev:2001:SCA

[MWL01] Peter Minev, Yaushu Wong, and Yanping Lin, editors. *Scientific computing and applications*, volume 7 of *Advances in Computation: Theory and Practice*. Nova Science Publishers Inc., Huntington, NY, USA, 2001. ISBN 1-59033-027-7.

Min:2007:PFD

[MY07] Tian Min and Danping Yang. Parallel finite difference schemes for heat equation based upon overlapping domain decomposition. *Applied Mathematics and Computation*, 186(2):1276–1292, March 15, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Nabben:2003:CBM

[Nab03] Reinhard Nabben. Comparisons between multiplicative and additive Schwarz iterations in domain decomposition methods. *Numerische Mathematik*, 95(1):145–162, July 2003. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Natarajan:1995:DDU

[Nat95] Ramesh Natarajan. Domain decomposition using spectral expansions of Steklov–Poincaré operators. *SIAM Journal on Scientific Computing*, 16(2):470–495, March 1995. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Natarajan:1997:DDU

[Nat97] Ramesh Natarajan. Domain decomposition using spectral expansions of Steklov–Poincaré operators. II. A matrix formulation. *SIAM Journal on Scientific Computing*, 18(4):1187–1199, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/27430`.

Nicolaides:1988:IME

[NC88] R. A. Nicolaides and Shenaz Choudhury. Iterative methods for elliptic finite element equations on general meshes. In *Finite elements (Hampton, VA, 1986)*, ICASE/NASA LaRC Ser., pages 94–123. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1988.

Necas:1967:MDT

[Neč67] Jindřich Nečas. *Les méthodes directes en théorie des équations elliptiques. (French) [Direct methods in the theory of elliptic equations]*. Academia, Prague, 1967. 351 pp. LCCN QA377 .N4.

Nedoma:1995:ISM

[Ned95] J. Nedoma, editor. *International Symposium on Mathematical Modelling and Computational Methods Modelling 94*. Elsevier Science B.V., Amsterdam, The Netherlands, 1995. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). Held in Prague, August 29–September 2, 1994, J. Comput. Appl. Math. **63** (1995), no. 1-3.

Nepomnyaschikh:1984:AMB

[Nep84] S. V. Nepomnyaschikh. On the application of the method of bordering for elliptic mixed boundary value problems and on the difference norms of $W_2^{1/2}(S)$. Technical Report 106, Computing Center of the Siberian Branch of the USSR Academy of Sciences, Novosibirsk, USSR, 1984. In Russian.

Nepomnyaschikh:1986:DDS

[Nep86] Sergey V. Nepomnyaschikh. *Domain Decomposition and Schwarz Methods in a Subspace for the Approximate Solution of Elliptic Boundary Value Problems*. PhD thesis, Computing Center of the Siberian Branch of the USSR Academy of Sciences, Novosibirsk, USSR, 1986.

Nepomnyashchikh:1990:MRO

[Nep90] S. V. Nepomnyashchikh. *Metod razdeleniya oblasti dlya ellipticheskikh zadach s razryvnymi koeffitsientami*, volume 891 of Preprint *[Preprint]*. Akad. Nauk SSSR Sibirsk. Otdel. Vychisl. Tsentr, Novosibirsk, USSR, 1990. 21 pp. With an English summary.

Nepomnyaschikh:1991:ADD

[Nep91] Sergey V. Nepomnyaschikh. Application of domain decomposition to elliptic problems on with discontinuous coefficients. In Roland Glowinski, Yuri A. Kuznetsov, Gérard A. Meurant, Jacques Périaux, and Olof Widlund, editors, *Fourth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1991.

Nepomnyashchikh:1992:DDM

[Nep92] S. V. Nepomnyashchikh. The domain decomposition method for elliptic problems with coefficient jumps in thin strips. *Doklady Akademii nauk SSSR*, 323(6):1034–1037, 1992. CODEN DANKAS. ISSN 0869-5652.

Nepomnyaschikh:1997:DDM

[Nep97] Sergei V. Nepomnyaschikh. Domain decomposition and multilevel techniques for preconditioning operators. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 193–203. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Nepomnyaschikh:1999:POE

[Nep99] S. V. Nepomnyaschikh. Preconditioning operators for elliptic problems with bad parameters. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 82–88 (electronic). DDM.org, Augsburg, 1999.

Nepomnyaschikh:2007:DDM

[Nep07] Sergey Nepomnyaschikh. Domain decomposition methods. In *Lectures on advanced computational methods in mechanics*, volume 1 of *Radon Ser. Comput. Appl. Math.*, pages 89–159. Walter de Gruyter, Berlin, 2007.

Nedoma:2003:SRR

[NHD+03] J. Nedoma, I. Hlaváček, J. Daněk, P. Vavřík, J. Stehlík, and F. Denk. Some recent results on a domain decomposition method in biomechanics of human joints. In *Computational science and its applications—ICCSA 2003. Part I*, volume 2667 of *Lecture Notes in Comput. Sci.*, pages 587–600. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2003.

Nielson:2009:NIE

[Nie09] Gregory M. Nielson. Normalized implicit eigenvector least squares operators for noisy scattered data: radial basis functions. *Computing*, 86(2–3):199–212, 2009. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

NKaoua:1991:SNR

[N'K91] T. N'Kaoua. Solution of the nonlinear radiative trans-

fer equations by a fully implicit matrix Monte Carlo method coupled with the Rosseland diffusion equation via domain decomposition. *SIAM Journal on Scientific and Statistical Computing*, 12(3):505–520, May 1991. CODEN SIJCD4. ISSN 0196-5204.

Neittaanmaki:2001:FEM

[NK01] Pekka Neittaanmäki and Michal Křížek, editors. *Finite element methods*, GAKUTO International Series. Mathematical Sciences and Applications, 15. Gakkōtosho Co. Ltd., Tokyo, Japan, 2001. ISBN 4-7625-0424-6. Three-dimensional problems.

Nourtier-Mazauric:2010:TEI

[NMB10] Elise Nourtier-Mazauric and Eric Blayo. Towards efficient interface conditions for a Schwarz domain decomposition algorithm for an advection equation with biharmonic diffusion. *Applied Numerical Mathematics: Transactions of IMACS*, 60(1–2):83–93, January/February 2010. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Natori:1987:IMN

[NN87] M. Natori and T. Nodera, editors. *Iterative methods for nonsymmetric systems and their applications*, volume 3 of *Advances in Numerical Methods for Large Sparse Sets of Linear Equations*. Keio University, Yokohama, Japan, 1987. Papers from the Third Symposium on Large Sparse Sets of Linear Equations held at Keio University, Yokohama, March 13, 1987.

Natori:1988:SS

[NN88] M. Natori and T. Nodera, editors. *Sparsity and supercomputer*, volume 4 of *Advances in Numerical Methods for Large Sparse Sets of Linear Equations*. Keio University, Yokohama, Japan, 1988.

Natori:1992:PPS

[NN92] M. Natori and T. Nodera, editors. *Parallel processing for scientific computing*, volume 8 of *Advances in Numerical Methods for Large Sparse Sets of Linear Equations*. Keio University, Yokohama, Japan, 1992. Papers from the Eighth PCG Symposium held at Keio University, Yokohama, February 28, 1992.

Nataf:1997:CRS

[NN97] F. Nataf and F. Nier. Convergence rate of some domain decomposition methods for overlapping and nonoverlapping subdomains. *Numerische Mathematik*, 75(3): 357–377, January 1997. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.de/link/service/journals/00211/bibs/7075003/70750357.htm; http://science.springer.`

de/nmee/bibs/7075003/70750357.htm.

Neta:1990:DDM

[NO90] B. Neta and N. Okamoto. On domain decomposition methods for solving partial differential equations. Technical Report NPS-MA-90-004, Department of Mathematics, Naval Postgraduate School, Monterey CA 93943, USA, 1990.

Nordstrom:2001:MPA

[Nor01] Jan Nordström. Model problems and the analysis of boundary procedures in CFD. In *Absorbing boundaries and layers, domain decomposition methods*, pages 109–117. Nova Sci. Publ., Huntington, NY, USA, 2001.

Novak:1999:TCD

[Nov99] Erich Novak. Is there a curse of dimension for integration? In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 89–96 (electronic). DDM.org, Augsburg, 1999.

Nguyen:1993:NSA

[NP93] Hoa D. Nguyen and Seungho Paik. A noniterative solution approach for parallel pseudospectral domain decomposition. *Journal of Scientific Computing*, 8(4):357–372, 1993. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic).

Nicoud:2001:BCC

[NP01] F. Nicoud and T. Poinsot. Boundary conditions for compressible unsteady flows. In *Absorbing boundaries and layers, domain decomposition methods*, pages 78–108. Nova Sci. Publ., Huntington, NY, USA, 2001.

Nepomnyaschikh:2005:PHP

[NP05] Sergey V. Nepomnyaschikh and Eun-Jae Park. Preconditioning for heterogeneous problems. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 415–422. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Nakshatrala:2009:DSD

[NPH09] K. B. Nakshatrala, A. Prakash, and K. D. Hjelmstad. On dual Schur domain decomposition method for linear first-order transient problems. *Journal of computational physics*, 228 (21):7957–7985, 2009. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Nyland:1997:ASP

[NPY+97] Lars Nyland, Jan Prins, Ru Huai Yun, Jan Hermans, Hye-Chung Kum, and Lei Wang. Achieving scalable parallel molecular dynamics using dynamic spatial

domain decomposition techniques. *Journal of Parallel and Distributed Computing*, 47(2):125–138, December 15, 1997. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL `http://www.idealibrary.com/links/doi/10.1006/jpdc.1997.1408/production; http://www.idealibrary.com/links/doi/10.1006/jpdc.1997.1408/production/pdf; http://www.idealibrary.com/links/doi/10.1006/jpdc.1997.1408/production/ref`.

Nataf:1994:OBC

[NR94] F. Nataf and F. Rogier. Outflow boundary conditions and domain decomposition method. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 289–293. AMS, Providence, RI, USA, 1994.

Nataf:1995:DDM

[NRdS95] F. Nataf, F. Rogier, and E. de Sturler. Domain decomposition methods for fluid dynamics. In *Navier–Stokes equations and related nonlinear problems (Funchal, 1994)*, pages 367–376. Plenum, New York, NY, USA, 1995.

Nagaiah:2008:ANS

[NRWF08a] Ch. Nagaiah, S. Rüdiger, G. Warnecke, and M. Falcke. Adaptive numerical simulation of intracellular calcium dynamics using domain decomposition methods. *Applied Numerical Mathematics: Transactions of IMACS*, 58(11): 1658–1674, November 2008. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Nagaiah:2008:PNS

[NRWF08b] Chamakuri Nagaiah, Sten Rüdiger, Gerald Warnecke, and Martin Falcke. Parallel numerical solution of intracellular calcium dynamics. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 607–614. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Niederreiter:2000:MCQ

[NS00] Harald Niederreiter and Jerome Spanier, editors. *Monte Carlo and quasi-Monte Carlo methods 1998*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000. ISBN 3-540-66176-X.

Neittaanmaki:2000:NMA

[NTT00] Pekka Neittaanmäki, Timo Tiihonen, and Pasi Tarvainen, editors. *Numerical mathematics and advanced applications*. World Scientific Publishing Co. Inc., River Edge, NJ, USA, 2000. ISBN 981-02-4387-1.

Nabben:2004:CDC

[NV04] R. Nabben and C. Vuik. A comparison of deflation and coarse grid correction applied to porous media flow. *SIAM Journal on Numerical Analysis*, 42(4):1631–1647 (electronic), 2004. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Nepomnyaschikh:1991:ETC

[NW91] Sergey V. Nepomnyaschikh and Olof B. Widlund. Extension theorems for the case of locally refined meshes. Technical report, Dept. of Computer Science, Courant Institute of Mathematical Sciences, 1991. To appear.

Niedermeier:1999:IAP

[NZ99] A. Niedermeier and S. Zimmer. Implementational aspects of prewavelet sparse grid methods. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 314–321 (electronic). DDM.org, Augsburg, 1999.

Nguyen:1994:DCE

[NZZ94] S. T. Nguyen, B. J. Zook, and Xiaodong Zhang. Distributed computation of electromagnetic scattering problems using finite-difference time-domain decompositions. In IEEE [IEE94b], pages 85–93. ISBN 0-8186-6395-2. LCCN QA76.9.D5I328 1994. IEEE catalog no. 94TH0667-6.

Odievre:2010:PMD

[OBG10] D. Odièvre, P.-A. Boucard, and F. Gatuingt. A parallel, multiscale domain decomposition method for the transient dynamic analysis of assemblies with friction. *Computer Methods in Applied Mechanics and Engineering*, 199 (21–22):1297–1306, 2010. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Ohring:1993:MDD

[ÖD93] Sabine R. Öhring and Sajal K. Das. Mapping dynamic data and algorithm structures into product networks. In *Algorithms and computation (Hong Kong, 1993)*, volume 762 of *Lecture Notes in Comput. Sci.*, pages 147–156. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1993.

Omrane:2009:GFD

[OD09] Ines Ben Omrane and Makkia Dammak. A generalized four dimensional Emden–Fowler equation with exponential nonlinearity. *Communications in Applied Analysis*, 13(3): 431–445, 2009. ISSN 1083-2564.

Otto:1999:PEN

[OL99] F.-C. Otto and G. Lube. A posteriori estimates for a

non-overlapping domain decomposition method. *Computing*, 62(1):27–43, 1999. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://link.springer-ny.com/link/service/journals/00607/bibs/9062001/90620027.htm; http://link.springer-ny.com/link/service/journals/00607/papers/9062001/90620027.pdf`.

Oualibouch:1997:PDD

[OM97] Said Oualibouch and Noureddine El Mansouri. Proximal domain decomposition algorithms and application to elliptic problems. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 91–98. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Ong:1989:HBP

[Ong89] M. E. G. Ong. Hierarchical basis preconditioners for second order elliptic problems in three dimensions. Technical Report 89–3, Dept. of Applied Math. University of Washington, Seattle, 1989.

Oden:1997:PDD

[OPF97] J. T. Oden, Abani Patra, and Yusheng Feng. Parallel domain decomposition solver for adaptive *hp* finite element methods. *SIAM Journal on Numerical Analysis*, 34(6): 2090–2118, December 1997. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/27888`.

Oden:1982:IMT

[OR82] J. T. Oden and J. N. Reddy. *An Introduction to the Mathematical Theory of Finite Elements*. John Wiley and Sons, Ltd., New York, London, Sydney, 1982. ISBN 0-471-65261-X. xii + 429 pp. LCCN QA379 .O3 1976.

Oloomi:2004:TTS

[OS04] H. Oloomi and B. Shafai. Two-time-scale distributions and singular perturbations. *International Journal of Control*, 77(11):1040–1049, 2004. CODEN IJCOAZ. ISSN 0020-7179.

Ould-Salihi:2000:BFD

[OSCH00] M. L. Ould-Salihi, G.-H. Cottet, and M. El Hamraoui. Blending finite-difference and vortex methods for incompressible flow computations. *SIAM Journal on Scientific Computing*, 22(5):1655–1674 (electronic), 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Oswald:1989:IHS

[Osw89a] Peter Oswald. On C^1 interpolating hierarchical spline bases. Technical Report N/89/16, Friedrich Schiller Universität, Jena, Germany, 1989.

Oswald:1989:EHB

[Osw89b] Peter Oswald. On estimates for hierarchic basis representations of finite element functions. Technical Report N/89/16, Friedrich Schiller Universität, Jena, Germany, 1989.

Oswald:1990:FSR

[Osw90a] Peter Oswald. On function spaces related to finite element approximation theory. *Z. Anal. Anwendungen*, 9(1):43–64, 1990.

Oswald:1990:DNS

[Osw90b] Peter Oswald. On the degree of nonlinear spline approximation in Besov-Sobolev spaces. *J. Appr. Theory*, 61(2):131–157, 1990.

Oswald:1991:BPP

[Osw91a] Peter Oswald. On a BPX-preconditioner for P1 elements. Technical Report Math./91/2, Friedrich Schiller Universität, Jena, Germany, 1991. (part 2).

Oswald:1991:DNE

[Osw91b] Peter Oswald. On discrete norm estimates related to multilevel preconditioners in the finite element method. In *Proc. Int. Conf. Theory of Functions, Varna 91*. ????, ????, 1991. To appear.

Oswald:1991:MPA

[Osw91c] Peter Oswald. On multilevel preconditioners adapted to a variable coefficient problem. Technical Report Math./91/1, Friedrich Schiller Universität, Jena, Germany, 1991.

Oswald:1991:PDB

[Osw91d] Peter Oswald. Preconditioners for discretizations of the biharmonic equation by rectangular finite elements. Technical report, Friedrich Schiller Universität, Jena, Germany, 1991.

Oswald:1991:TRM

[Osw91e] Peter Oswald. Two remarks on multilevel preconditioners. Technical Report Math./91/2, Friedrich Schiller Universität, Jena, Germany, 1991. (part 2).

Oswald:1992:HCF

[Osw92a] P. Oswald. Hierarchical conforming finite element methods for the biharmonic equation. *SIAM Journal on Numerical Analysis*, 29(6):1610–1625, December 1992. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Oswald:1992:HBM

[Osw92b] Peter Oswald. On a hierarchical basis multilevel method with nonconforming P1 elements. *Numer. Math.*, 1992. To appear.

Oswald:1993:BPE

[Osw93] P. Oswald. On a BPX-preconditioner for P1 elements. *Computing*, 51(2):125–133, 1993. CODEN CMPTA2.

ISSN 0010-485X (print), 1436-5057 (electronic).

Oswald:1994:CRS

[Osw94] P. Oswald. On the convergence rate of SOR: a worst case estimate. *Computing*, 52(3):245–255, 1994. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Oswald:1999:IPM

[Osw99] P. Oswald. Interface preconditioners and multilevel extension operators. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 97–104 (electronic). DDM.org, Augsburg, 1999.

Of:2006:BET

[OSW06] Günther Of, Olaf Steinbach, and Wolfgang L. Wendland. Boundary element tearing and interconnecting domain decomposition methods. In *Multifield problems in solid and fluid mechanics*, volume 28 of *Lect. Notes Appl. Comput. Mech.*, pages 461–490. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006.

Ovall:2007:HMT

[Ova07] J. S. Ovall. Hierarchical matrix techniques for a domain decomposition algorithm. *Computing*, 80(4):287–297, September 2007. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=80&issue=4&spage=287`.

Overton:1988:MME

[Ove88] Michael L. Overton. On minimizing the maximum eigenvalue of a symmetric matrix. *SIAM J. Matrix Anal. Appl.*, 9(2):256–268, 1988.

Ovtchinnikov:1993:CWC

[Ovt93] E. Ovtchinnikov. On the construction of a well-conditioned basis for the projection decomposition method. *Calcolo*, 30 (3):255–271 (1994), 1993. CODEN CDABAE. ISSN 0008-0624 (print), 1126-5434 (electronic).

Ovtchinnikov:1999:RSC

[OX99] E. E. Ovtchinnikov and L. S. Xanthis. Robust subspace correction methods for thin elastic shells. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 105–112 (electronic). DDM.org, Augsburg, 1999.

Paglieri:1997:PCS

[PAF+97] L. Paglieri, D. Ambrosi, L. Formaggia, A. Quarteroni, and A. L. Scheinine. Parallel computation for shallow water flow: A domain decomposition approach. *Parallel Computing*, 23(9):1261–

1277, November 3, 1997. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/parco/cas_sub/browse/browse.cgi?year=1997&volume=23&issue=9&aid=1210`.

Portero:2010:CDD

[PAJ10] L. Portero, A. Arrarás, and J. C. Jorge. Contractivity of domain decomposition splitting methods for nonlinear parabolic problems. *Journal of Computational and Applied Mathematics*, 234(4): 1078–1087, 2010. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic).

Papamichael:1989:NCM

[Pap89] N. Papamichael. Numerical conformal mapping onto a rectangle with applications to the solution of Laplacian problems. In *Proceedings of the 3rd International Congress on Computational and Applied Mathematics (Leuven, 1988)*, volume 28 (special issue) of *Journal of Computational and Applied Mathematics*, pages 63–83. Elsevier, Amsterdam, The Netherlands, 1989. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic).

Park:1995:DDM

[Par95] Pil Seong Park. A domain decomposition method applied to queuing network problems. *Commun. Korean Math. Soc.*, 10(3):735–750, 1995. ISSN 1225-1763.

Park:2004:PMD

[Par04] Jungho Park. A primal mixed domain decomposition procedure based on the nonconforming streamline diffusion method. *Applied Numerical Mathematics: Transactions of IMACS*, 50(2):165–181, August 2004. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Pasciak:1988:DDPb

[Pas88a] Joseph E. Pasciak. Domain decomposition preconditioners for elliptic problems in two and three dimensions. In *Numerical algorithms for modern parallel computer architectures (Minneapolis, MN, 1986–87)*, volume 13 of *IMA Vol. Math. Appl.*, pages 163–171. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1988.

Pasciak:1988:DDPa

[Pas88b] Joseph E. Pasciak. Domain decomposition preconditioners for elliptic problems in two and three dimensions: First approach. In Roland Glowinski, Gene H. Golub, Gérard A. Meurant, and Jacques Périaux, editors, *First International Symposium on Domain Decomposition Methods for Partial*

Differential Equations (Paris, 1987), pages 62–72. SIAM, Philadelphia, PA, USA, 1988.

Pasquarelli:1991:DDS

[Pas91] Franco Pasquarelli. Domain decomposition for spectral approximation to Stokes equations via divergence-free functions. *Applied Numerical Mathematics: Transactions of IMACS*, 8(6):493–514, December 1991. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Pavarino:1991:ASM

[Pav91] Luca F. Pavarino. An additive Schwarz method for the p-version finite element method. Technical Report 580, Courant Institute of Mathematical Sciences, Department of Computer Science, September 1991. A revised version has been submitted to Numer. Math.

Pavarino:1992:DDA

[Pav92] Luca F. Pavarino. *Domain Decomposition Algorithms for the p-version finite element method for elliptic problems*. PhD thesis, Courant Institute, New York University, September 1992.

Pavarino:1993:SML

[Pav93a] Luca F. Pavarino. Schwarz methods with local refinement for the p-version finite element method. Technical Report TR93-01, Rice University, Department of Computational and Applied Mathematics, January 1993. Submitted to Numer. Math.

Pavarino:1993:SSA

[Pav93b] Luca F. Pavarino. Some Schwarz algorithms for the p-version finite element method. In Alfio Quarteroni, editor, *Sixth Conference on Domain Decomposition Methods for Partial Differential Equations*. AMS, Providence, RI, USA, 1993. Held in Como, Italy, June 15–19,1992. To appear. Technical report 614, Department of Computer Science, Courant Institute.

Pavarino:1999:DDA

[Pav99] Luca F. Pavarino. Domain decomposition algorithms for first-order system least squares methods. *Electronic Transactions on Numerical Analysis*, 8:1–14, 1999. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL `http://etna.mcs.kent.edu/vol.8.1999/pp1-14.dir/pp1-14.pdf`.

Pavarino:2000:DDM

[Pav00] Luca F. Pavarino. Domain decomposition methods with small overlap for Q_n–Q_{n-2} spectral elements. *Applied Numerical Mathematics: Transactions of IMACS*, 33(1–4): 463–470, May 2000. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

URL http://www.elsevier.nl/gej-ng/29/17/21/61/27/74/abstract.html; http://www.elsevier.nl/gej-ng/29/17/21/61/27/74/article.pdf.

Papadrakakis:1994:DDP

[PB94] M. Papadrakakis and S. Bitzarakis. Domain decomposition PCG methods for serial and parallel processing. In *Hellenic European research on mathematics and informatics '94, Vol. 1, 2 (Athens, 1994)*, pages 389–411. Hellenic Mathematical Society, Athens, Greece, 1994.

Papadrakakis:1996:ACM

[PB96] Manolis Papadrakakis and G. Bugeda, editors. *Advanced computational methods in structural mechanics: Human Capital and Mobility Workshop on Advanced Finite Element Solution Procedures on Innovative Computer Architectures, held in Barcelona, April 6–7, 1995*. International Centre for Numerical Methods in Engineering (CIMNE), Barcelona, Spain, 1996. ISBN 84-87867-75-8. LCCN ????

Parks:2008:CAC

[PBL08] Michael L. Parks, Pavel B. Bochev, and Richard B. Lehoucq. Connecting atomistic-to-continuum coupling and domain decomposition. *Multiscale Modeling & Simulation*, 7(1):362–380, ???? 2008. CODEN ???? ISSN 1540-3459 (print), 1540-3467 (electronic).

Periaux:1997:DDM

[PC97] J. Periaux and H. Q. Chen. Domain decomposition method using genetic algorithms for solving transonic aerodynamic problems. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 427–431. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Pain:1999:SAT

[PdOG99] C. C. Pain, C. R. E. de Oliveira, and A. J. H. Goddard. Simulated annealing task to processor mapping for domain decomposition methods on distributed parallel computers. *Concurrency: practice and experience*, 11(3):155–165, March 1999. CODEN CPEXEI. ISSN 1040-3108. URL http://www3.interscience.wiley.com/cgi-bin/abstract?ID=61003666; http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=61003666&PLACEBO=IE.pdf.

Perkins:1992:MDU

[Per92] A. Louise Perkins. A mixed directed-undirected data structure for a parallel implementation of a domain decomposition algorithm. *BIT (Nordisk tidskrift for informationsbehan-*

dling), 32(4):598–608, December 1992. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=32&issue=4&spage=598`.

Pavarino:2005:PSC

[PF05] Luca F. Pavarino and Piero Colli Franzone. Parallel solution of cardiac reaction-diffusion models. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 669–676. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Pan:2003:DSM

[PGJB03] T.-W. Pan, R. Glowinski, D. D. Joseph, and R. Bai. Direct simulation of the motion of settling ellipsoids in Newtonian fluid. In *Domain decomposition methods in science and engineering*, pages 119–129 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Popp:2009:FDM

[PGW09] Alexander Popp, Michael W. Gee, and Wolfgang A. Wall. A finite deformation mortar contact formulation using a primal-dual active set strategy. *International Journal for Numerical Methods in Engineering*, 79(11):1354–1391, 2009. CODEN IJNMBH. ISSN 0029-5981.

Phillips:1990:SDD

[Phi90] Timothy N. Phillips. Spectral domain decomposition techniques for viscous incompressible flows. In *Spectral and high order methods for partial differential equations (Como, 1989)*, pages 389–395. North-Holland Publishing Co., Amsterdam, The Netherlands, 1990.

Phillips:1992:PDD

[Phi92] Timothy N. Phillips. Pseudospectral domain decomposition techniques for the Navier–Stokes equations. In *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations (Norfolk, VA, 1991)*, pages 531–540. SIAM, Philadelphia, PA, USA, 1992.

Power:2007:NOD

[PHR07] H. Power, A. Hernandez, and A. La Rocca. Non-overlapping domain decomposition scheme for the symmetric radial basis function meshless approach with double collocation at the sub-domain interfaces. In *Boundary elements and other mesh reduction methods XXIX*, volume 44 of *WIT Trans. Model. Simul.*, pages 13–22. WIT Press, Southampton, UK, 2007.

Prado:2000:BTV

[PHW00] Raquel Prado, Gabriel Huerta, and Mike West. Bayesian time-varying autoregressions: theory, methods and applications. *Resenhas*, 4(4):405–422, 2000. ISSN 0104-3854. Special number on time series analysis.

Pieska:2004:DDM

[Pie04] Jali Pieskä. Domain decomposition methods for continuous casting problem. *Acta Univ. Oulu. Ser. A Sci. Rerum Natur.*, 420(??):95, 2004. CODEN AUOMDD. ISSN 0355-3191. Dissertation, University of Oulu, Oulu, 2004.

Pini:1992:DDN

[Pin92] G. Pini. Domain decomposition and nested grids in a parallel environment. *Supercomputer*, 9(4):22–28, July 1992. CODEN SPCOEL. ISSN 0168-7875.

Liang:1993:NCD

[pLhH93] Guo ping Liang and Jiang heng He. The non-conforming domain decomposition method for elliptic problems with Lagrangian multipliers. *Chinese J. Numer. Math. Appl.*, 15(1): 8–19, 1993. ISSN 0899-4358.

Liang:1990:NDD

[pLL90] Gou ping Liang and Ping Liang. Nonconforming domain decomposition with hybrid method. *Journal of Computational Mathematics*, 8(4): 363–370, 1990. CODEN JCMMEB. ISSN 0254-9409.

Pieska:2005:PCM

[PLL05] J. Pieskä, E. Laitinen, and A. Lapin. Predictor-corrector methods for solving continuous casting problem. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 677–684. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Pohoata:2006:BET

[Poh06] A. Pohoaţă. Boundary element tearing and interconnecting dual-primal method for two dimensional domains. *An. Univ. Bucureşti Mat.*, 55(2): 237–248, 2006. ISSN 1010-5433.

Poincare:1896:MNP

[Poi96] Henri Poincaré. La méthode de Neumann et le problème de Dirichlet. (French) [The Neumann method and the Dirichlet problem]. *Acta Math*, 20: 59–??, 1896.

Popoviciu:2002:PMS

[Pop02] Ioan Popoviciu. Parallel methods for solving the linear algebraic systems. *An. Ştiinţ. Univ. Ovidius Constanţa Ser. Mat.*, 10(2):63–78, 2002. ISSN 1223-723X.

Pierce:1988:TLP

[PP88] D. J. Pierce and R. J. Plemmons. A two-level preconditioned conjugate gradient scheme. In *Linear algebra in signals, systems, and control (Boston, MA, 1986)*, pages 170–185. SIAM, Philadelphia, PA, USA, 1988.

Pino:2004:AAL

[PP04] Stephane Del Pino and Olivier Pironneau. Asymptotic analysis and layer decomposition for the couplex exercise. *Computers and Geosciences*, 8(2):149–162, 2004. CODEN CGEODT, CGOSDN. ISSN 1420-0597.

Popov:2007:DDT

[PPŠ07] V. Popov, H. Power, and L. Škerget, editors. *Domain decomposition techniques for boundary elements*, volume 21 of *Advances in Boundary Elements*. WIT Press, Southampton, UK, 2007. ISBN 1-84564-100-0. xvi + 298 pp. Application to fluid flow.

Pereyra:1983:NM

[PR83] Victor Pereyra and Alfonso Reinoza, editors. *Numerical methods*, volume 1005 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1983. ISBN 3-540-12334-2.

Perkins:1990:DDM

[PR90] A. Louise Perkins and Garry Rodrigue. A domain decomposition method for solving a two-dimensional viscous Burgers' equation. *Applied Numerical Mathematics: Transactions of IMACS*, 6(4):329–340, May 1990. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Pavarino:1995:NEO

[PR95] Luca F. Pavarino and Marcelo Ramé. Numerical experiments with an overlapping additive Schwarz solver for 3-D parallel reservoir simulation. *The International Journal of Supercomputer Applications and High Performance Computing*, 9(1):3–17, Spring 1995. CODEN IJSAE9. ISSN 0890-2720.

Prager:1993:TPI

[Prá93] Milan Práger. A two parameter iterative method for solving algebraic systems of domain decomposition type. In *Proceedings of ISNA '92—International Symposium on Numerical Analysis, Part II (Prague, 1992)*, volume 38(6) of *Applications of Mathematics*, pages 470–478. Mathematical Institute, Academy of Science of the Czech Republic, Prague, Czech Republic, 1993. CODEN APMTEO. ISSN 0862-7940.

Pringle:1995:ETM

[Pri95] Gavin J. Pringle. Embedding a 'treecode' on a MIMD parallel computer using a domain decomposition paradigm. *Future*

Generation Computer Systems, 11(2):183–192, March 1995. CODEN FGSEVI. ISSN 0167-739X (print), 1872-7115 (electronic).

Peng:2010:OWD

[PRL10] Zhen Peng, Vineet Rawat, and Jin-Fa Lee. One way domain decomposition method with second order transmission conditions for solving electromagnetic wave problems. *Journal of computational physics*, 229(4):1181–1197, February 20, 2010. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0021999109005762`.

Pasquetti:2006:NNS

[PRPZ06] Richard Pasquetti, Francesca Rapetti, Luca Pavarino, and Elena Zampieri. Neumann-Neumann-Schur complement methods for Fekete spectral elements. *J. Engrg. Math.*, 56 (3):323–335, 2006. CODEN JLEMAU. ISSN 0022-0833.

Przemieniecki:1963:MSA

[Prz63] J. S. Przemieniecki. Matrix structural analysis of substructures. *Am. Inst. Aero. Astro. J.*, 1:138–147, 1963.

Przemieniecki:1985:TMS

[Prz85] J. S. Przemieniecki. *Theory of Matrix Structural Analysis*. Dover Publications, New York, 1985. ISBN 0-486-64948-2. 468 pp. LCCN TA642.P77 1985. Reprint of McGraw Hill, 1968.

Papamichael:1988:DDM

[PS88] N. Papamichael and S. N. Stylianopoulos. On a domain decomposition method for the computation of conformal modules. *Applied Mathematics Letters*, 1(3):277–280, 1988. CODEN AMLEEL. ISSN 0893-9659 (print), 1873-5452 (electronic).

Papamichael:1990:NPD

[PS90] N. Papamichael and N. S. Stylianopoulos. On the numerical performance of a domain decomposition method for conformal mapping. In *Computational methods and function theory (Valparaí so, 1989)*, volume 1435 of *Lecture Notes in Math.*, pages 155–169. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1990.

Papamichael:1992:DDM

[PS92] N. Papamichael and N. S. Stylianopoulos. A domain decomposition method for approximating the conformal modules of long quadrilaterals. *Numerische Mathematik*, 62(2):213–234, July 1992. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Peric:1993:PMS

[PS93] M. Perić and E. Schreck. Ein paralleler Mehrgitteralgorith-

mus zur Strömungsberechnung mittels Gebietszerlegung. (German) [A parallel multi-lattice algorithm for flow computation via area dismantling]. In *Numerische Algorithmen auf Transputer-Systemen (Heidelberg, 1991)*, Teubner Skr. Numer., pages 189–206. Teubner, Stuttgart, Germany; Leipzig, Germany, 1993.

Papamichael:1995:DDC

[PS95] N. Papamichael and N. S. Stylianopoulos. Domain decomposition for conformal maps. In *Computational methods and function theory 1994 (Penang)*, volume 5 of *Ser. Approx. Decompos.*, pages 267–291. World Sci. Publ., River Edge, NJ, 1995.

Pousin:2000:DDN

[PS00] J. Pousin and T. Sassi. Domain decomposition with non matching grids and adaptive finite element techniques. *East-West Journal of Numerical Mathematics*, 8(3):243–256, 2000. CODEN EJNMEA. ISSN 0928-0200.

Philippe:2007:CED

[PS07] Bernard Philippe and Yousef Saad. On correction equations and domain decomposition for computing invariant subspaces. *Computer Methods in Applied Mechanics and Engineering*, 196(8):1471–1483, 2007. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Pechstein:2009:STD

[PS09] Clemens Pechstein and Robert Scheichl. Scaling up through domain decomposition. *Applicable Analysis*, 88(10–11): 1589–1608, 2009. CODEN APANCC. ISSN 0003-6811.

Park:2010:DDM

[PS10] Jong Hyuk Park and John C. Strikwerda. The domain decomposition method for Maxwell's equations in time domain simulations with dispersive metallic media. *SIAM Journal on Scientific Computing*, 32(2):684–702, ???? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Pehrson:1994:IPP

[PSB+94] Björn Pehrson, Imre Simon, Klaus Brunnstein, Eckart Raubold, Karen Duncan, and Karl Krueger, editors. *Information processing '94: proceedings of the IFIP 13th World Computer Congress, Hamburg, Germany, 28 August–2 September, 1994*, volume A-51, A-52, A-53 of *IFIP Transactions. A. Computer Science and Technology*. North-Holland Publishing Co., Amsterdam, The Netherlands, 1994. CODEN ITATEC. ISBN 0-444-81990-8, 0-444-81989-4. ISSN 0926-5473. LCCN QA75.5.I3785 1994. Three volumes.

Peirano:2003:DDS

[PT03] Éric Peirano and Denis Talay. Domain decomposition by stochastic methods. In *Domain decomposition methods in science and engineering*, pages 131–147 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Panasenko:2008:FVI

[PV08] G. Panasenko and M.-C. Viallon. The finite volume implementation of the partial asymptotic domain decomposition. *Applicable Analysis*, 87 (12):1397–1424, 2008. CODEN APANCC. ISSN 0003-6811.

Pavarino:1993:ISM

[PW93] Luca F. Pavarino and Olof B. Widlund. Iterative substructuring methods for p-version finite elements in three dimensions. Technical report, Courant Institute of Mathematical Sciences, Department of Computer Science, 1993. To appear.

Pavarino:2000:ISM

[PW00] Luca F. Pavarino and Olof B. Widlund. Iterative substructuring methods for spectral element discretizations of elliptic systems in three dimensions. In *Parallel solution of partial differential equations (Minneapolis, MN, 1997)*, volume 120 of *IMA Vol. Math. Appl.*, pages 1–30. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000.

Pavarino:2002:BPI

[PW02] L. F. Pavarino and O. B. Widlund. Building preconditioners for incompressible Stokes equations from saddle point solvers of smaller dimensions. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 271–278. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Papadopoulos:1991:DDF

[PWSB91] C. A. Papadopoulos, K.-P. Wang, J. M. Sloss, and J. C. Bruch, Jr. Domain decomposition for free boundary seepage. In *Computational modelling of free and moving boundary problems, Vol. 1 (Southampton, 1991)*, pages 37–48. Comput. Mech., Southampton, UK, 1991.

Yang:1993:SDD

[pY93] Dan ping Yang. Schwarz domain decomposition algorithms for boundary element method. *Numer. Math. J. Chinese Univ. (English Ser.)*, 2 (2):154–161, 1993. ISSN 1004-8979 (print), 2079-7338 (electronic).

Pencheva:2003:BDD

[PY03] Gergina Pencheva and Ivan Yotov. Balancing domain de-

composition for mortar mixed finite element methods. *Numerical Linear Algebra with Applications*, 10(1–2):159–180, January/March 2003. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Qiang:2003:PPC

[QFR03] Ji Qiang, Miguel A. Furman, and Robert D. Ryne. Parallel particle-in-cell simulation of colliding beams in high energy accelerators. In ACM [ACM03], page ?? ISBN 1-58113-695-1. LCCN ???? URL `http://www.sc-conference.org/sc2003/inter_cal/inter_cal_detail.php?eventid=10694#2; http://www.sc-conference.org/sc2003/paperpdfs/pap223.pdf`.

Quarteroni:1988:PAC

[QL88a] A. Quarteroni and G. Sacchi Landriani. Parallel algorithms for the capacitance matrix method in domain decompositions. *Calcolo*, 25(1–2):75–102, 1988. CODEN CDABAE. ISSN 0008-0624 (print), 1126-5434 (electronic).

Quarteroni:1988:DDP

[QL88b] Alfio Quarteroni and Giovanni Sacchi Landriani. Domain decomposition preconditioners for the spectral collocation method. *Journal of Scientific Computing*, 3(1):45–76, 1988. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic).

Quarteroni:1989:ISN

[QL89] A. Quarteroni and G. Sacchi Landriani. Iteration by subdomains in numerical fluid dynamics. In *Applications of mathematics in industry and technology (Siena, 1988)*, pages 54–76. Teubner, Stuttgart, Germany; Leipzig, Germany, 1989.

Qiming:1994:DDM

[QL94] He Qiming and Kang Lishan. The domain decomposition method for multidimensional and large scale nonlinear systems—case of subdomains overlapping. *Parallel Algorithms and Applications*, 4(1–2):77–90, ???? 1994. CODEN PAAPEC. ISSN 1063-7192. URL `http://www.informaworld.com/smpp/content~content=a772745101`.

Quarteroni:1991:CVI

[QLV91] A. Quarteroni, G. Sacchi Landriani, and A. Valli. Coupling of viscous and inviscid Stokes equations via a domain decomposition method for finite elements. *Numerische Mathematik*, 59(8):831–859, October 1991. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Quarteroni:1994:DDM

[QPKW94] Alfio Quarteroni, J. Periaux, Y. Kutnetsov, and O. Wid-

lund, editors. *Domain Decomposition Methods in Science and Engineering: The Sixth International Conference on Domain Decomposition, June 15–19, 1992, Como, Italy*, volume 157 of *Contemporary Mathematics*. AMS, Providence, RI, USA, 1994. ISBN 0-8218-5158-6. LCCN QA402.2 .I55 1992.

Shang:2009:FAS

[qSnH09] Yue qiang Shang and Yin nian He. Fourier analysis of Schwarz domain decomposition methods for the biharmonic equation. *Appl. Math. Mech. (English Ed.)*, 30(9): 1177–1182, 2009. CODEN AMMEEQ. ISSN 0253-4827.

Quarteroni:2006:ISD

[QSV06] Alfio Quarteroni, Marzio Sala, and Alberto Valli. An interface-strip domain decomposition preconditioner. *SIAM Journal on Scientific Computing*, 28(2):498–516, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/volume-28/art_61057.html`.

Quarteroni:1987:DDT

[Qua87] A. Quarteroni. Domain decomposition techniques using spectral methods. *Calcolo*, 24 (2):141–177, 1987. CODEN CDABAE. ISSN 0008-0624 (print), 1126-5434 (electronic).

Quarteroni:1989:DDA

[Qua89] Alfio Quarteroni. Domain decomposition algorithms for the Stokes equations. In Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Domain Decomposition Methods*. SIAM, Philadelphia, PA, USA, 1989.

Quarteroni:1990:DDM

[Qua90] Alfio Quarteroni. Domain decomposition methods for systems of conservation laws: Spectral collocation approximations. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1029–1052, November 1990. CODEN SIJCD4. ISSN 0196-5204.

Quarteroni:1991:DDP

[Qua91] Alfio Quarteroni. Domain decomposition and parallel processing for the numerical solution of partial differential equations. *Surveys Math. Indust.*, 1(1):75–118, 1991. CODEN SMINER. ISSN 0938-1953.

Quarteroni:1994:MAD

[Qua94] Alfio Quarteroni. Mathematical aspects of domain decomposition methods. In *First European Congress of Mathematics, Vol. II (Paris, 1992)*, volume 120 of *Progr. Math.*, pages 355–379. Birkhäuser Verlag, Basel, Switzerland, 1994.

Quarteroni:1990:DDG

[QV90] Alfio Quarteroni and Alberto Valli. Domain decomposition for a generalized Stokes problem. In *Proceedings of the Third European Conference on Mathematics in Industry (Glasgow, 1988)*, volume 5 of *European Consort. Math. Indust.*, pages 59–74. Teubner, Stuttgart, Germany; Leipzig, Germany, 1990.

Quarteroni:1991:TAS

[QV91] A. Quarteroni and A. Valli. Theory and application of Steklov–Poincaré operators for boundary-value problems. In *Applied and industrial mathematics (Venice, 1989)*, volume 56 of *Math. Appl.*, pages 179–203. Kluwer Academic Publishers, Norwell, MA, USA, and Dordrecht, The Netherlands, 1991.

Quarteroni:1999:DDM

[QV99] Alfio Quarteroni and Alberto Valli. *Domain decomposition methods for partial differential equations*. Numerical Mathematics and Scientific Computation. The Clarendon Press Oxford University Press, New York, NY, USA, 1999. ISBN 0-19-850178-1. xvi + 360 pp. Oxford Science Publications.

Qin:2006:PRT

[QX06] Lizhen Qin and Xuejun Xu. On a parallel Robin-type nonoverlapping domain decomposition method. *SIAM Journal on Numerical Analysis*, 44(6):2539–2558 (electronic), January 2006. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Qin:2008:OSM

[QX08] Lizhen Qin and Xuejun Xu. Optimized Schwarz methods with Robin transmission conditions for parabolic problems. *SIAM Journal on Scientific Computing*, 31(1):608–623, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Rachowicz:1995:ODD

[Rac95] W. Rachowicz. An overlapping domain decomposition preconditioner for an anisotropic h-adaptive finite element method. *Computer Methods in Applied Mechanics and Engineering*, 127(1–4): 269–292, 1995. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Rahmouni:2001:PML

[Rah01] Adib N. Rahmouni. The perfectly matched layers in fluid dynamics. In *Absorbing boundaries and layers, domain decomposition methods*, pages 310–338. Nova Sci. Publ., Huntington, NY, USA, 2001.

Rathmann:2000:MSS

[Rat00] Wigand Rathmann. Modellierung, Simulation und

Steuerung von Netzwerken schwingender Balken mittels dynamischer Bereichszerlegung. *Bayreuth. Math. Schr.*, 60(??):199, 2000. ISSN 0172-1062. Dissertation, Universität Bayreuth, Bayreuth, 2000.

Reale:1994:PCU

[RBS94] F. Reale, F. Bocchino, and S. Sciortino. Parallel computing on Unix workstation arrays. *Computer Physics Communications*, 83(2–3): 130–140, December 1994. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0010465594900426`.

Russell:1992:CMW

[REB+92] T. F. Russell, R. E. Ewing, C. A. Brebbia, W. G. Gray, and G. F. Pinder, editors. *Computational methods in water resources. IX. Vol. 1*. Computational Mechanics Publications, Southampton, UK, 1992. ISBN 1-85312-197-5. Numerical methods in water resources.

Repin:2008:AFF

[Rep08] S. Repin. Advanced forms of functional a posteriori error estimates for elliptic problems. *Russian journal of numerical analysis and mathematical modelling*, 23(5):505–521, 2008. CODEN RJNMEH. ISSN 0927-6467.

Rivera-Gallego:2003:SAN

[RG03] Wilson Rivera-Gallego. Stability analysis of numerical boundary conditions in domain decomposition algorithms. *Applied Mathematics and Computation*, 137(2–3): 375–385, May 25, 2003. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Rodriguez:2006:NND

[RGG06] Ana Alonso Rodriguez and Luca Gerardo-Giorda. New nonoverlapping domain decomposition methods for the harmonic Maxwell system. *SIAM Journal on Scientific Computing*, 28(1):102–122, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/volume-28/art_60869.html`.

Rheinbach:2009:PIS

[Rhe09] Oliver Rheinbach. Parallel iterative substructuring in structural mechanics. *Arch. Comput. Methods Eng.*, 16(4): 425–463, 2009. ISSN 1134-3060.

Rivera:2010:PFE

[RHGT10] Christian A. Rivera, Mourad Heniche, Roland Glowinski, and Philippe A. Tanguy. Parallel finite element simulations of incompressible viscous fluid flow by domain decomposition with Lagrange multipli-

ers. *Journal of computational physics*, 229(13):5123–5143, July 1, 2010. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0021999110001476`.

Rivers:2007:FFL

[RJ07] Alec R. Rivers and Doug L. James. FastLSM: fast lattice shape matching for robust real-time deformation. *ACM Transactions on Graphics*, 26 (3):82:1–82:??, July 2007. CODEN ATGRDF. ISSN 0730-0301 (print), 1557-7368 (electronic).

Rodrigue:1989:CCA

[RKL89] Garry Rodrigue, Li Shan Kang, and Yu Hui Liu. Convergence and comparison analysis of some numerical Schwarz methods. *Numerische Mathematik*, 56(2–3):123–138, October 1989. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Rapin:2002:CTI

[RL02] Gerd Rapin and Gert Lube. Comparison of two iterative substructuring methods for advection-diffusion problems. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 437–444. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Rapin:2004:STF

[RL04] G. Rapin and G. Lube. A stabilized three-field formulation for advection-diffusion equations. *Computing*, 73(2):155–178, 2004. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Raju:1988:FFD

[RM88] K. V. S. V. N. Raju and Arun K. Majumdar. Fuzzy functional dependencies and lossless join decomposition of fuzzy relational database systems. *ACM Transactions on Database Systems*, 13(2):129–166, June 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1988-13-2/p129-raju/p129-raju.pdf`; `http://www.acm.org/pubs/citations/journals/tods/1988-13-2/p129-raju/`; `http://www.acm.org/pubs/toc/Abstracts/tods/42344.html`.

Roux:2003:OIO

[RMSS03] François-Xavier Roux, Frédéric Magoulès, Stéphanie Salmon, and Laurent Series. Optimization of interface operator based on algebraic approach. In *Domain decomposition methods in science and engineering*, pages 297–304 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Roache:1995:EMM

[Roa95] Patrick J. Roache. *Elliptic marching methods and domain decomposition*. Symbolic and Numeric Computation Series. CRC Press, 2000 N.W. Corporate Blvd., Boca Raton, FL 33431-9868, USA, 1995. ISBN 0-8493-7378-6. xvi + 190 pp.

Rodrigue:1985:IOI

[Rod85] Garry Rodrigue. Inner/outer iterative methods and numerical Schwarz algorithms. *Parallel Computing*, 2(3):205–218, 1985. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Roeck:1989:LPD

[Roe89] Yann-Hervé De Roeck. A local preconditioner in a domain-decomposed method. Technical Report TR89/10, Centre Européen de Recherche et de Formation Avancée en Calcul Scientifique, Toulouse, France, 1989.

Roeck:1993:NES

[Roe93] Yann-Herve De Roeck. Nonlinear elasticity solved by a domain decomposition method on a hypercube. *Applied Numerical Mathematics: Transactions of IMACS*, 12(5):459–471, 1993. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Ronquist:1992:DDM

[Røn92] Einar M. Rønquist. A domain decomposition method for elliptic boundary value problems: application to unsteady incompressible fluid flow. In *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations (Norfolk, VA, 1991)*, pages 545–557. SIAM, Philadelphia, PA, USA, 1992.

Ronquist:1999:DDM

[Røn99] Einar M. Rønquist. Domain decomposition methods for the steady Stokes equations. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 330–340 (electronic). DDM.org, Augsburg, 1999.

Rozvany:1992:SLO

[Roz92] G. I. N. Rozvany, editor. *Shape and layout optimization of structural systems and optimality criteria methods*, volume 325 of *CISM Courses and Lectures*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1992. ISBN 3-211-82363-8. vi + 496 pp.

Rogers:1989:PDT

[RP89] Anne Rogers and Keshav Pingali. Process decomposition through locality of reference. *ACM SIGPLAN Notices*, 24(7):69–80, July 1989. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL `http://www.acm.org:`

80/pubs/citations/proceedings/pldi/73141/p69-rogers/.

Ramos:2001:DDT

[RS01] J. I. Ramos and E. Soler. Domain decomposition techniques for reaction-diffusion equations in two-dimensional regions with re-entrant corners. *Applied Mathematics and Computation*, 118(2–3):189–221, March 9, 2001. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL http://www.elsevier.nl/gej-ng/10/9/12/96/25/25/abstract.html; http://www.elsevier.nl/gej-ng/10/9/12/96/25/25/article.pdf.

Roberts:2007:PFV

[RSN07] S. G. Roberts, L. Stals, and O. M. Nielsen. Parallelisation of a finite volume method for hydrodynamic inundation modelling. *The ANZIAM Journal*, 48((C)): C558–C572 (2008), 2007. CODEN AJNOA2. ISSN 1446-1811 (print), 1446-8735 (electronic).

Ruscheweyh:1990:CMF

[RSSV90] St. Ruscheweyh, E. B. Saff, L. C. Salinas, and R. S. Varga, editors. *Computational methods and function theory*, volume 1435 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1990. ISBN 3-540-52768-0.

Ribalta:2008:AAM

[RSVV08] Angel Ribalta, Christina Stoecker, Simon Vey, and Axel Voigt. AMDiS — adaptive multidimensional simulations: parallel concepts. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 615–621. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Raviart:1975:MFE

[RT75] P. A. Raviart and J. M. Thomas. A mixed finite element method for 2-nd order elliptic problems. In A. Dold and B. Eckmann, editors, *Mathematical Aspects of Finite Element Methods*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1975. Lecture Notes of Mathematics, Volume 606.

Ryabenkii:2006:ACS

[RTÈ06] V. S. Ryaben′kiĭ, V. I. Turchaninov, and E. Yu. Èpshteĭn. An algorithm composition scheme for problems in composite domains based on the method of difference potentials. *Zh. Vychisl. Mat. Mat. Fiz.*, 46(10):1853–1870, 2006. ISSN 0044-4669.

Rude:1997:SIE

[Rüd97] Ulrich Rüde. Stability of implicit extrapolation meth-

ods. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 99–107. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Rui:1993:SAM

[Rui93] Hong Xing Rui. A Schwarz alternating method for a class of parabolic equations and error analyses. *Numer. Math. J. Chinese Univ.*, 15(4):360–368, 1993. ISSN 1000-081X.

Rui:1996:NDD

[Rui96] H. X. Rui. Nonoverlapping domain decomposition method with mixed element for elliptic problems. *Journal of Computational Mathematics*, 14(4): 291–300, 1996. CODEN JCMMEB. ISSN 0254-9409.

Rui:1998:DDP

[Rui98] Hong Xing Rui. Domain decomposition parallel algorithms with corrections along characteristics for convection-diffusion problems. *Shandong Daxue Xuebao Ziran Kexue Ban*, 33(2):121–127, 1998. CODEN SDXKEU. ISSN 0559-7234.

Rebollo:2004:SNO

[RV04] Tomás Chacón Rebollo and Eliseo Chacón Vera. Study of a non-overlapping domain decomposition method: Poisson and Stokes problems. *Applied Numerical Mathematics: Transactions of IMACS*, 48 (2):169–194, February 2004. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Rebollo:2005:SNO

[RV05] Tomás Chacón Rebollo and Eliseo Chacón Vera. Study of a non-overlapping domain decomposition method: Steady Navier–Stokes equations. *Applied Numerical Mathematics: Transactions of IMACS*, 55 (1):100–124, September 2005. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Rice:1993:CAN

[RVY93] John R. Rice, E. A. Vavalis, and D. Yang. Convergence analysis of a non-overlapping domain decomposition method for elliptic PDEs. Technical report TR-93-048, Department of Computer Science, Purdue University, West Lafayette, IN 47907-2107, USA, July 1993. 8 pp. URL `http://www.cs.purdue.edu/research/technical_reports/1993/TR%2093-048.pdf`.

Rice:1997:ANO

[RVY97] J. R. Rice, E. A. Vavalis, and D. Yang. Analysis of a non-overlapping domain decomposition method for elliptic partial differential equations. *Journal of Computational and Applied Mathematics*, 87(??):11–19, ???? 1997. CODEN JCAMDI. ISSN

0377-0427 (print), 1879-1778 (electronic).

Rusten:1992:MFE

[RW92] T. Rusten and R. Winther. Mixed finite element methods and domain decomposition. In *Computational methods in water resources, IX, Vol. 1 (Denver, CO, 1992)*, pages 597–604. Comput. Mech., Southampton, UK, 1992.

Rusten:1993:SPE

[RW93] Torgeir Rusten and Ragnar Winther. Substructure preconditioners for elliptic saddle point problems. *Mathematics of Computation*, 60(201): 23–48, January 1993. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Rahman:2005:ASP

[RXH05] Talal Rahman, Xuejun Xu, and Ronald H. W. Hoppe. On an additive Schwarz preconditioner for the Crouzeix–Raviart mortar finite element. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 335–342. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Rui:1997:SDD

[RY97] Hongxing Rui and Danping Yang. Schwarz domain decomposition method with time stepping along characteristic for convection diffusion equations. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 309–315. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Rude:1998:MPE

[RZ98] Ulrich Rüde and Aihui Zhou. Multi-parameter extrapolation methods for boundary integral equations. *Advances in computational mathematics*, 9(1–2):173–190, 1998. CODEN ACMHEX. ISSN 1019-7168. Numerical treatment of boundary integral equations.

Saad:2000:PTL

[SAD+00] Yousef Saad, Owe Axelsson, Iain Duff, Wei-Pai Tang, Henk van der Vorst, and Andy Wathen, editors. *Preconditioning techniques for large sparse matrix problems in industrial applications*. John Wiley and Sons, Ltd., New York, London, Sydney, 2000. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic). Papers from the International Conference (SPARSE '99) held at the University of Minnesota, Minneapolis, MN, June 10–12, 1999, Numer. Linear Algebra Appl. **7** (2000), no. 7-8.

Sala:2004:ATL

[Sal04] Marzio Sala. Analysis of two-level domain decomposition

preconditioners based on aggregation. *Mathematical modelling and numerical analysis = Modelisation mathématique et analyse numérique: M^2AN*, 38(5):765–780, 2004. CODEN RMMAEV. ISSN 0764-583X (print), 1290-3841 (electronic).

Samarskii:1998:SIC

[Sam98] A. A. Samarskii, editor. *Second International Conference "Finite-Difference Methods: Theory and Application". Vol. 1*. National Academy of Sciences of Belarus, Institute of Mathematics, Minsk, 1998. ISBN 985-6499-04-6.

Shrimali:2010:CIT

[SAM10] Gireesh Shrimali, Aditya Akella, and Almir Mutapcic. Cooperative interdomain traffic engineering using Nash bargaining and decomposition. *IEEE/ACM Transactions on Networking*, 18(2): 341–352, April 2010. CODEN IEANEP. ISSN 1063-6692 (print), 1558-2566 (electronic).

Sarkis:1993:TLS

[Sar93] Marcus Sarkis. Two-level Schwarz methods for nonconforming finite elements and discontinuous coefficients. Technical Report 629, Courant Institute of Mathematical Sciences, Department of Computer Science, March 1993.

Sarkis:2003:PUC

[Sar03] M. Sarkis. Partition of unity coarse spaces: enhanced versions, discontinuous coefficients and applications to elasticity. In *Domain decomposition methods in science and engineering*, pages 149–158 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Sassi:2003:DDA

[Sas03] T. Sassi. A domain decomposition algorithm for nonlinear interface problem. In *Domain decomposition methods in science and engineering*, pages 467–474 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Satofuka:2001:CFD

[Sat01] Nobuyuki Satofuka, editor. *Computational fluid dynamics 2000*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001. ISBN 3-540-41459-2.

Succi:1989:FCP

[SB89] Sauro Succi and Maurizio Benassi. A four-color parallel algorithm for the solution of a two-dimensional advection-diffusion equation with the finite element method. *Journal of Scientific Computing*, 4(1):61–70, 1989. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic).

Szabo:1991:FEA

[SB91] Barna Szabó and Ivo Babuška. *Finite Element Analysis*. John

Wiley and Sons, Ltd., New York, London, Sydney, 1991. ISBN 0-471-50273-1. xv + 368 pp. LCCN TA347.F5 S98 1991.

Smith:1996:DD

[SBG96] Barry F. Smith, Petter E. Bjørstad, and William D. Gropp. *Domain decomposition*. Cambridge University Press, Cambridge, UK, 1996. ISBN 0-521-49589-X. xii + 224 pp. Parallel multilevel methods for elliptic partial differential equations.

Smith:1998:DDP

[SBGP98] Barry F. Smith, Petter E. Bjorstad, William D. Gropp, and Joseph E. Pasciak. Domain decomposition: Parallel multilevel methods for elliptic partial differential equations. *SIAM Review*, 40(1): 169–??, March 1998. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Sbosny:1991:DDM

[Sbo91] Hannes Sbosny. Domain decomposition methods and parallel multigrid algorithms. In *Multigrid methods: special topics and applications, II (Bonn, 1990)*, volume 189 of *GMD-Stud.*, pages 297–308. Gesellsch. Math. Datenverarbeitung, St. Augustin, Switzerland, 1991.

Stagg:1992:ANI

[SC92] A. K. Stagg and G. F. Carey. Asynchronous nonlinear iteration and domain decomposition. In *Parallel processing for scientific computing (Houston, TX, 1991)*, pages 281–286. SIAM, Philadelphia, PA, USA, 1992.

Shao:1996:ADD

[SC96] S. Shao and R. C. Y. Chin. An asymptotic-domain decomposition method for a time-dependent singularly perturbed system. In *Differential equations and applications (Hangzhou, 1996)*, pages 269–276. Int. Press, Cambridge, MA, 1996.

Schwarz:1890:GMA

[Sch90] H. A. Schwarz. *Gesammelte Mathematische Abhandlungen*, volume 2, pages 133–143. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1890. First published in Vierteljahrsschrift der Naturforschenden Gesellschaft in Zürich, volume 15, 1870, pp. 272–286.

Schultz:1971:EBR

[Sch71] Martin H. Schultz. L^2 error bounds for the Rayleigh–Ritz–Galerkin method. *SIAM Journal on Numerical Analysis*, 8(4):737–748, December 1971. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Schatz:1974:OCR

[Sch74] Alfred H. Schatz. An observation concerning Ritz–Galerkin methods with indefinite bilinear forms. *Mathematics of Computation*, 28(128):959–962, October 1974. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Schultz:1988:NAM

[Sch88] Martin Schultz, editor. *Numerical algorithms for modern parallel computer architectures*, volume 13 of *The IMA Volumes in Mathematics and its Applications*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1988. ISBN 0-387-96733-8. Papers from the IMA Workshop held at the University of Minnesota, Minneapolis, Minnesota, 1986–1987.

Schwandt:1994:IAD

[Sch94] H. Schwandt. An interval arithmetic domain decomposition method for a class of elliptic PDEs on nonrectangular domains. *Journal of Computational and Applied Mathematics*, 50:509–521, May 1994. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). Fifth International Congress on Computational and Applied Mathematics.

Schwandt:1996:GCI

[Sch96] H. Schwandt. Globally convergent iterative domain decomposition methods for the parallel solution of a class of nonlinear systems of equations. In Alefeld et al. [AFL96], pages 280–286. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Schoberl:1998:SSP

[Sch98] J. Schöberl. Solving the Signorini problem on the basis of domain decomposition techniques. *Computing*, 60(4):323–344, 1998. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springer.at/springer.py?Page=10&Key=362&cat=300607/tocs/springer.py?Page=47&Key=340&cat=3&id_abstract=3160&id_volume=289&id_journal=8`.

Scherer:2005:WNE

[Sch05] Karl Scherer. Weighted norm-equivalences for preconditioning. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 405–413. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Scott:1994:EPU

[Sco94] L. Ridgway Scott. Elliptic preconditioners using fast summation techniques. In *Domain decomposition methods in scientific and engineering computing (University Park, PA,*

1993), volume 180 of *Contemp. Math.*, pages 311–323. AMS, Providence, RI, USA, 1994.

Scroggs:1988:SPP

[Scr88] Jeffrey Scott Scroggs. The solution of a parabolic partial differential equation via domain decomposition: the synthesis of asymptotic and numerical analysis. Technical Report CSRD 791; UILU-ENG-88-8005, University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, 1988. ix + 146 pp.

Scroggs:1991:PMD

[Scr91] Jeffrey S. Scroggs. A physically motivated domain decomposition for singularly perturbed equations. *SIAM Journal on Numerical Analysis*, 28 (1):168–178, February 1991. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Sergienko:2004:OCE

[SD04] I. V. Sergienko and V. S. Deĭneka. Optimal control of an elliptic system with conjugation conditions and Neumann boundary conditions. *Kibernet. Sistem. Anal.*, 40(6):93–111, 186, 2004. ISSN 0023-1274.

Sergienko:2007:IPT

[SD07] I. V. Sergienko and V. S. Deĭneka. Identification of the parameters of a thin composite plate under a dynamic force. *Problemy Upravlen. Inform.*, 6 (??):33–56, 145, 2007. ISSN 0572-2691.

Sequeira:1995:NSE

[Seq95] A. Sequeira, editor. *Navier-Stokes equations and related nonlinear problems*. Plenum Press, New York, NY, USA; London, UK, 1995. ISBN 0-306-45118-2.

Strang:1973:AFE

[SF73] Gilbert Strang and George J. Fix. *An Analysis of the Finite Element Method*. Prentice-Hall, Englewood Cliffs, NJ 07632, USA, 1973. ISBN 0-13-032946-0. xiv + 306 pp. LCCN TA335 .S77.

Saas:2002:DDR

[SFNW02] Laurent Saas, Isabelle Faille, Frédéric Nataf, and Françoise Willien. Domain decomposition with Robin interface conditions on non-matching grids using finite volume method. In *Finite volumes for complex applications, III (Porquerolles, 2002)*, pages 229–236. Hermes Sci. Publ., Paris, 2002.

Saas:2005:FVM

[SFNW05] L. Saas, I. Faille, F. Nataf, and F. Willien. Finite volume methods for domain decomposition on nonmatching grids with arbitrary interface conditions. *SIAM Journal on Numerical Analysis*, 43(2):860–890, April 2005.

CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/43405`.

Shao:1990:SDD

[Sha90] Jian Ping Shao. A symmetric domain decomposition method based on the symmetrization principle. *Math. Appl. (Wuhan)*, 3(2):6–11, 1990. ISSN 1001-9847.

Shao:1994:MVS

[Sha94] Jian Ping Shao. The modified vertex space domain decomposition method for Neumann boundary value problems. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 325–336. AMS, Providence, RI, USA, 1994.

Singh:1993:PAF

[SHHG93] Jaswinder P. Singh, Chris Holt, John L. Hennessy, and Anoop Gupta. A parallel adaptive fast multipole method. In IEEE [IEE93], pages 54–67. ISBN 0-8186-4340-4 (paperback), 0-8186-4341-2 (microfiche), 0-8186-4342-0 (hardcover), 0-8186-4346-3 (CD-ROM). ISSN 1063-9535. LCCN QA76.5 .S96 1993.

Shishkin:1993:IGM

[Shi93] G. I. Shishkin. Iterative grid methods for singularly perturbed elliptic equations degenerating into zero-order ones. *Russian journal of numerical analysis and mathematical modelling*, 8(4):341–369, 1993. CODEN RJNMEH. ISSN 0927-6467.

Shi:1995:OPD

[Shi95] Peihu Shi. Orthogonal projection of the domain boundary operator for elliptic problem by domain decomposition. *J. Southeast Univ. (English Ed.)*, 11(1):83–90, 1995. ISSN 1003-7985.

Shishkin:1999:GAS

[Shi99] G. I. Shishkin. Grid approximation of singularly perturbed boundary value problems in a nonconvex domain with a piecewise-smooth boundary. *Mat. Model.*, 11(11):75–90, 1999. ISSN 0234-0879.

Shakib:1989:EEA

[SHJ89a] Farzin Shakib, Thomas J. R. Hughes, and Zdeněk Johan. Element-by-element algorithms for nonsymmetric matrix problems arising in fluids. In *Solution of superlarge problems in computational mechanics (Mystic, CT, 1988)*, pages 1–33. Plenum, New York, NY, USA, 1989.

Shakib:1989:MEG

[SHJ89b] Farzin Shakib, Thomas J. R. Hughes, and Zdeněk Johan. A multi-element group preconditioned GMRES algorithm for

nonsymmetric systems arising in finite element analysis. In *Proceedings of the Eighth International Conference on Computing Methods in Applied Sciences and Engineering (Versailles, 1987)*, volume 75(1–3) of *Computer Methods in Applied Mechanics and Engineering*, pages 415–456. Elsevier, Amsterdam, The Netherlands, 1989. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Sun:2009:DDMa

[SHS09] Dudu Sun, Qiya Hu, and Shi Shu. A domain decomposition method with Lagrange multiplier based on the pointwise matching condition. *Int. J. Numer. Anal. Model.*, 6(1): 147–160, 2009. ISSN 1705-5105.

Sassi:2008:GLN

[SIR08] Taoufik Sassi, Mohamed Ipopa, and François Xavier Roux. Generalization of Lions' nonoverlapping domain decomposition method for contact problems. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 623–630. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Sunkavalli:2010:MSI

[SJMP10] Kalyan Sunkavalli, Micah K. Johnson, Wojciech Matusik, and Hanspeter Pfister. Multi-scale image harmonization. *ACM Transactions on Graphics*, 29(4):125:1–125:??, July 2010. CODEN ATGRDF. ISSN 0730-0301 (print), 1557-7368 (electronic).

Sidilkover:1992:NSE

[SK92] David Sidilkover and George Em. Karniadakis. Nonoscillatory spectral element Chebyshev method for shock wave calculations. In *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations (Norfolk, VA, 1991)*, pages 566–585. SIAM, Philadelphia, PA, USA, 1992.

Stefanica:1999:FMM

[SK99] Dan Stefanica and Axel Klawonn. The FETI method for mortar finite elements. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 121–129 (electronic). DDM.org, Augsburg, 1999.

Saeed:2009:DDS

[SK09] Fahad Saeed and Ashfaq Khokhar. A domain decomposition strategy for alignment of multiple biological sequences on multiprocessor platforms. *Journal of Parallel and Distributed Computing*, 69(7):666–677, July 2009. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Skogen:1992:SMP

[Sko92] Morten D. Skogen. *Schwarz Methods and Parallelism*. PhD thesis, Department of Informatics, University of Bergen, Norway, February 1992.

Shi:2006:USC

[SL06] Han-Sheng Shi and Hong-Lin Liao. Unconditional stability of corrected explicit-implicit domain decomposition algorithms for parallel approximation of heat equations. *SIAM Journal on Numerical Analysis*, 44(4):1584–1611, January 2006. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Sheng:2004:DDA

[SLC04] Zhiqiang Sheng, Xingping Liu, and Xia Cui. Domain decomposition algorithm for the parabolic equation with variable coefficient. *Commun. Math. Sci.*, 2(3):391–402, 2004. ISSN 1539-6746. URL `http://projecteuclid.org/getRecord?id=euclid.cms/1109868727`.

Shih:1994:MCS

[SLLZ94] Tsi Min Shih, Chin Bo Liem, Tao Lü, and Ai Hui Zhou. A multi-color splitting method and convergence analysis for local grid refinement. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 337–342. AMS, Providence, RI, USA, 1994.

Shi:1998:PTC

[SM98] Zhong-Ci Shi and Masatake Mori, editors. *Proceedings of Third China–Japan Seminar on Numerical Mathematics*. Science Press, Beijing, PRC, 1998. ISBN 7-03-006781-9. Held in Dalian, August 26–30, 1997.

Saleri:2007:GMA

[SM07] Fausto Saleri and Edie Miglio. Geometric multiscale approach by optimal control for shallow water equations. In *Applied and industrial mathematics in Italy II*, volume 75 of *Ser. Adv. Math. Appl. Sci.*, pages 537–548. World Sci. Publ., Hackensack, NJ, 2007.

Sun:2010:PGD

[SM10] Tongjun Sun and Keying Ma. Parallel Galerkin domain decomposition procedures for wave equation. *Journal of Computational and Applied Mathematics*, 233(8): 1850–1865, 2010. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic).

Smelov:1989:FIP

[Sme89] V. V. Smelov. Formulation of the iterative process on subdomains for transport theory problems in odd P_{2N+1}-approximation. *Soviet J. Numer. Anal. Math. Modelling*, 4 (6):507–521, 1989. ISSN 0169-

2895. Domain decomposition methods.

Smith:1990:DDAa

[Smi90] Barry F. Smith. *Domain Decomposition Algorithms for the Partial Differential Equations of Linear Elasticity*. PhD thesis, Courant Institute of Mathematical Sciences, September 1990. Tech. Rep. 517, Department of Computer Science, Courant Institute.

Smith:1991:DDA

[Smi91] Barry F. Smith. A domain decomposition algorithm for elliptic problems in three dimensions. *Numerische Mathematik*, 60(2):219–234, November 1991. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Smith:1992:ISAa

[Smi92a] Barry F. Smith. An iterative substructuring algorithm for problems in three dimensions. In Tony F. Chan, David E. Keyes, Gérard A. Meurant, Jeffrey S. Scroggs, and Robert G. Voigt, editors, *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1992.

Smith:1992:ODD

[Smi92b] Barry F. Smith. An optimal domain decomposition preconditioner for the finite element solution of linear elasticity problems. *SIAM Journal on Scientific and Statistical Computing*, 13(1):364–378, January 1992. CODEN SIJCD4. ISSN 0196-5204.

Smith:1993:PIIa

[Smi93] Barry F. Smith. A parallel implementation of an iterative substructuring algorithm for problems in three dimensions. *SIAM Journal on Scientific and Statistical Computing*, 14(2):406–423, March 1993.

Stephan:2008:DDA

[SMT08] Ernst P. Stephan, Matthias Maischak, and Thanh Tran. Domain decomposition algorithms for an indefinite hypersingular integral equation in three dimensions. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 647–655. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Sobolev:1936:LST

[Sob36] S. L. Sobolev. L'algorithme de Schwarz dans la théorie de l'elasticité. (French) [The Schwarz algorithm in the theory of elasticity]. *Comptes Rendus (Doklady) de l'Académie des Sciences de l'URSS*, IV ((XIII) 6):243–246, 1936.

Sobolevskii:1998:HIS

[Sob98] Pavel E. Sobolevskii. Hardy's inequality for the Stokes problem. In *Navier–Stokes equations and related nonlinear problems (Palanga, 1997)*, pages 331–347. VSP, Utrecht, The Netherlands, 1998.

Sherwin:2003:AAM

[SP03] S. J. Sherwin and J. Peiró. Algorithms and arteries: multi-domain spectral/*hp* methods for vascular flow modelling. In *Domain decomposition methods in science and engineering*, pages 159–170 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Scacchi:2008:MSM

[SP08] Simone Scacchi and Luca F. Pavarino. Multilevel Schwarz and multigrid preconditioners for the bidomain system. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 631–638. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Santos:2005:PTB

[SPBV05] Rodrigo Weber Dos Santos, G. Plank, S. Bauer, and E. J. Vigmond. Preconditioning techniques for the bidomain equations. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 571–580. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Srinivasan:1992:AMD

[SR92] Kumar Srinivasan and Stanley G. Rubin. Adaptive multigrid domain decomposition solutions of the reduced Navier–Stokes equations. In *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations (Norfolk, VA, 1991)*, pages 586–596. SIAM, Philadelphia, PA, USA, 1992.

Staff:2005:SPA

[SR05] Gunnar Andreas Staff and Einar M. Rønquist. Stability of the parareal algorithm. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 449–456. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Stals:2008:PLO

[SR08] Linda Stals and Stephen Roberts. Preconditioners for low order thin plate spline approximations. In *Domain decomposition methods in science and engineering XVII*, volume 60 of *Lect. Notes Comput. Sci. Eng.*, pages 639–646. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008.

Serre:2001:HOA

[SRB01] Eric Serre, Isabelle Raspo, and Patrick Bontoux. High-order accurate spectral approximations for Navier–Stokes problems. In *Proceedings of the Third World Congress of Nonlinear Analysts, Part 6 (Catania, 2000)*, volume 47(6) of *Nonlinear Analysis, Theory, Methods and Applications*, pages 4257–4268. Elsevier, Amsterdam, The Netherlands, 2001. CODEN NOANDD. ISSN 0362-546X (print), 1873-5215 (electronic).

Saad:1986:GGM

[SS86] Y. Saad and M. H. Schultz. GMRES: A generalized minimum residual algorithm for solving nonsymmetric linear systems. *SIAM Journal on Scientific and Statistical Computing*, 7:856–869, 1986.

Strikwerda:1993:DDM

[SS93] John C. Strikwerda and Carl D. Scarbnick. A domain decomposition method for incompressible viscous flow. *SIAM Journal on Scientific Computing*, 14(1):49–67, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Santos:1998:GPD

[SS98] Juan E. Santos and Dongwoo Sheen. Global and parallelizable domain-decomposed mixed F.E.M. for 3D electromagnetic modelling. *Comput. Appl. Math.*, 17(3):265–282, 1998. ISSN 0101-8205.

Sala:2008:PHP

[SSH08] Marzio Sala, W. F. Spotz, and M. A. Heroux. PyTrilinos: High-performance distributed-memory solvers for Python. *ACM Transactions on Mathematical Software*, 34(2):7:1–7:33, March 2008. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Schnack:1996:NOD

[SST96] E. Schnack, Sz. Szikrai, and K. Türke. Non-overlapping domain decomposition with BEM and FEM: theory and applications. In *Proceedings of the Prague Mathematical Conference 1996*, pages 289–294. Icaris, Prague, 1996.

Sala:2005:ICB

[SST05] Marzio Sala, John N. Shadid, and Ray S. Tuminaro. An improved convergence bound for aggregation-based domain decomposition preconditioners. *SIAM Journal on Matrix Analysis and Applications*, 27(3):744–756, July 2005. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/61745`.

Saad:1998:DDM

[SSZ98] Yousef Saad, Maria Sosonkina, and Jun Zhang. Domain

decomposition and multi-level type techniques for general sparse linear systems. In *Domain decomposition methods, 10 (Boulder, CO, 1997)*, volume 218 of *Contemp. Math.*, pages 174–190. AMS, Providence, RI, USA, 1998.

Sun:1994:OSA

[ST94] Victor H. Sun and Wei-Pai Tang. An overdetermined Schwarz alternating method. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 349–354. AMS, Providence, RI, USA, 1994.

Spielman:1996:SPW

[ST96] Daniel A. Spielman and Shang-Hua Teng. Spectral partitioning works: planar graphs and finite element meshes. In *37th Annual Symposium on Foundations of Computer Science (Burlington, VT, 1996)*, pages 96–105. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996.

Stephan:1998:DDA

[ST98] Ernst P. Stephan and Thanh Tran. Domain decomposition algorithms for indefinite hypersingular integral equations: The h and p versions. *SIAM Journal on Scientific Computing*, 19(4):1139–1153, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/29616`.

Stephan:2000:DDA

[ST00a] Ernst P. Stephan and Thanh Tran. Domain decomposition algorithms for indefinite weakly singular integral equations: the h and p versions. *IMA Journal of Numerical Analysis*, 20(1):1–24, January 2000. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL `http://www3.oup.co.uk/imanum/hdb/Volume_20/Issue_01/200001.sgm.abs.html; http://www3.oup.co.uk/imanum/hdb/Volume_20/Issue_01/pdf/200001.pdf`.

Suzuki:2000:DDM

[ST00b] Atsushi Suzuki and Masahisa Tabata. A domain decomposition method for a discretized Stokes problem by $P1/P1$ finite element. *Sūrikaisekikenkyūsho Kōkyūroku*, 1145(??):211–219, 2000. Numerical solution of partial differential equations and related topics (Japanese) (Kyoto, 1999).

Sloot:2002:CSIa

[STDH02a] Peter M. A. Sloot, C. J. Kenneth Tan, Jack J. Dongarra, and Alfons G. Hoekstra, editors. *Computational science—*

ICCS 2002. Part I, volume 2329 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2002. ISBN 3-540-43591-3.

Sloot:2002:CSIb

[STDH02b] Peter M. A. Sloot, C. J. Kenneth Tan, Jack J. Dongarra, and Alfons G. Hoekstra, editors. *Computational science—ICCS 2002. Part II*, volume 2330 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2002. ISBN 3-540-43593-X.

Sloot:2002:CSIc

[STDH02c] Peter M. A. Sloot, C. J. Kenneth Tan, Jack J. Dongarra, and Alfons G. Hoekstra, editors. *Computational science—ICCS 2002. Part III*, volume 2331 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2002. ISBN 3-540-43594-8.

Steklov:1901:GMS

[Ste01] V. A. Steklov. *General Methods for Solving Basic Problems of Mathematical Physics*. Mathematical Society of Charkov, Charkov, Russia, 1901.

Steinbach:1994:BED

[Ste94] Olaf Steinbach. Boundary elements in domain decomposition methods. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 343–348. AMS, Providence, RI, USA, 1994.

Steinbach:1995:PIS

[Ste95] O. Steinbach. Parallel iterative solvers for symmetric boundary element domain decomposition methods. In *Fast solvers for flow problems (Kiel, 1994)*, volume 49 of *Notes Numer. Fluid Mech.*, pages 263–272. Vieweg & Son, Braunschweig, Germany, 1995.

Steinbach:1996:GRE

[Ste96] Olaf Steinbach. *Gebietszerlegungsmethoden mit Randintegralgleichungen und effiziente numerische Lösungsverfahren für gemischte Randwertprobleme. (German) [Area decomposition methods with boundary integral equations and efficient numeric solution procedures for mixed boundary value problems]*. Universität Stuttgart, Stuttgart, Germany, 1996. iv + 155 pp. Dissertation, Universität Stuttgart, Stuttgart, 1996.

Stefanica:2005:CND

[Ste05a] Dan Stefanica. Choosing nonmortars: does it influence the

performance of FETI-DP algorithms? In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 377–384. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Steinbach:2005:NDD

[Ste05b] O. Steinbach. A natural domain decomposition method with non-matching grids. *Applied Numerical Mathematics: Transactions of IMACS*, 54(3–4):362–377, August 2005. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Son:2004:MCC

[STJ04] Le Hung Son, Wolfgang Tutschke, and Sapna Jain, editors. *Methods of complex and Clifford analysis*. SAS International Publications, Delhi, 2004. ISBN 81-88296-01-5.

Strang:1972:AFE

[Str72] Gilbert Strang. Approximation in the finite element method. *Numerische Mathematik*, 19:81–98, 1972.

Strietzel:1996:PTS

[Str96] M. Strietzel. Parallel turbulence simulation based on MPI. In Liddell et al. [LCHS96], pages 283–289. ISBN 3-540-61142-8 (paperback). LCCN QA76.88 .H52 1996.

Stupfel:2010:ITC

[Stu10] Bruno Stupfel. Improved transmission conditions for a one-dimensional domain decomposition method applied to the solution of the Helmholtz equation. *Journal of computational physics*, 229(3):851–874, February 1, 2010. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0021999109005609`.

Su:1994:DDM

[Su94] Chao Wei Su. A domain decomposition method for determining the diffusion coefficient of a two-dimensional linear diffusion equation in the time domain. *Applied Numerical Mathematics: Transactions of IMACS*, 15(4):481–493, November 1, 1994. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/apnum/cas_sub/browse/browse.cgi?year=1994&volume=15&issue=4&aid=511`.

Suzuki:1997:INO

[Suz97] Atsushi Suzuki. Implementation of non-overlapping domain decomposition methods on parallel computer ADENA. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*,

pages 275–282. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Samarskii:1995:VAS

[SV95] A. A. Samarskiĭ and P. N. Vabishchevich. Vector additive schemes of domain decomposition for parabolic problems. *Differ. Uravn.*, 31(9): 1563–1569, 1606, 1995. ISSN 0374-0641.

Samarskii:1996:ICA

[SV96a] A. A. Samarskiĭ and P. N. Vabishchevich. Iterative cluster aggregation methods for systems of linear equations. *Doklady Akademii nauk SSSR*, 349(1):22–25, 1996. CODEN DANKAS. ISSN 0869-5652.

Shishkin:1996:PDD

[SV96b] Grigorii I. Shishkin and Petr N. Vabishchevich. Parallel domain decomposition methods with the overlapping of subdomains for parabolic problems. *Mathematical models and methods in applied sciences*, 6(8):1169–1185, 1996. CODEN MMMSEU. ISSN 0218-2025.

Samarskii:1999:ASD

[SV99a] A. A. Samarskiĭ and P. N. Vabishchevich. *Additivnye skhemy dlya zadach matematicheskoi fiziki*. Nauka, Moscow, Russia, 1999. ISBN 5-02-002445-7. 320 pp.

Samarskii:1999:DDM

[SV99b] A. A. Samarskii and P. N. Vabishchevich. Domain decomposition methods for parabolic problems. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 341–347 (electronic). DDM.org, Augsburg, 1999.

Smith:1990:DDAb

[SW90] Barry F. Smith and Olof B. Widlund. A domain decomposition algorithm using a hierarchical basis. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1212–1220, November 1990. CODEN SIJCD4. ISSN 0196-5204.

Sbosny:1991:PMU

[SW91] Hannes Sbosny and Kristian Witsch. Parallel multigrid using domain decomposition. In *Parallel algorithms for partial differential equations (Kiel, 1990)*, volume 31 of *Notes Numer. Fluid Mech.*, pages 200–215. Vieweg & Son, Braunschweig, Germany, 1991.

Szyld:1993:VAS

[SW93] Daniel B. Szyld and Olof B. Widlund. Variational analysis of some conjugate gradient methods. *East-West Journal of Numerical Mathematics*, 1 (1):51–74, 1993.

Steinbach:1997:EPB

[SW97] O. Steinbach and W. L. Wendland. Efficient preconditioners for boundary element methods and their use in domain decomposition methods. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 3–18. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Steinbach:1999:DDB

[SW99] O. Steinbach and W. L. Wendland. Domain decomposition and boundary elements. In *Recent advances in numerical methods and applications, II (Sofia, 1998)*, pages 112–123. World Sci. Publ., River Edge, NJ, 1999.

Swann:1993:ULM

[Swa93] Howard Swann. On the use of Lagrange multipliers in domain decomposition for solving elliptic problems. *Mathematics of Computation*, 60 (201):49–78, January 1993. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Xiong:1996:CPD

[sX96] Yue shan Xiong. The Chebyshev pseudospectral domain decomposition method for solving two-dimensional elliptic equation. *Numer. Math. J. Chinese Univ. (English Ser.)*, 5(1):1–12, 1996. ISSN 1004-8979 (print), 2079-7338 (electronic).

Shi:1997:SPN

[SX97] Zhongci Shi and Zhenghui Xie. Substructure preconditioners for nonconforming plate elements. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 109–115. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Shi:1999:CMM

[SX99] Zhong-Ci Shi and Xuejun Xu. V-cycle multigrid methods for Wilson nonconforming element. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 113–120 (electronic). DDM.org, Augsburg, 1999.

Shi:2002:MMT

[SXC02] Zhong-Ci Shi, Xuejun Xu, and Jinru Chen. Multigrid for the mortar-type nonconforming element method for nonsymmetric and indefinite problems. In *Domain decomposition methods in science and engineering (Lyon, 2000)*, Theory Eng. Appl. Comput. Methods, pages 279–286. Internat. Center Numer. Methods Eng. (CIMNE), Barcelona, 2002.

Sun:2009:DDMb

[SXyWX09] Pengtao Sun, Guangri Xue, Chao yang Wang, and Jinchao Xu. A domain decom-

position method for two-phase transport model in the cathode of a polymer electrolyte fuel cell. *Journal of computational physics*, 228(16):6016–6036, 2009. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Sydow:1994:PSA

[Syd94] A. Sydow. Parallel simulation of air pollution. In Pehrson et al. [PSB+94], pages 605–612. CODEN ITATEC. ISBN 0-444-81990-8, 0-444-81989-4. ISSN 0926-5473. LCCN QA75.5.I3785 1994. Three volumes.

Schadle:2007:DDM

[SZB+07] Achim Schädle, Lin Zschiedrich, Sven Burger, Roland Klose, and Frank Schmidt. Domain decomposition method for Maxwell's equations: scattering off periodic structures. *Journal of computational physics*, 226(1):477–493, 2007. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Tzatchkov:2003:DDS

[TAA03] V. G. Tzatchkov, A. A. Aldama, and F. I. Arreguin. A domain decomposition strategy for the numerical simulation of contaminant transport in pipe networks. In *Domain decomposition methods in science and engineering*, pages 483–490 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Taha:1992:PAI

[Tah92] Thiab R. Taha. A parallel algorithm for an investigation of self-focusing singularity of higher KdV equations. In *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations (Norfolk, VA, 1991)*, pages 597–604. SIAM, Philadelphia, PA, USA, 1992.

Tai:1994:DDL

[Tai94] Xue Cheng Tai. Domain decomposition for linear and nonlinear elliptic problems via function or space decomposition. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 355–360. AMS, Providence, RI, USA, 1994.

Tai:2002:DDM

[Tai02] Xue-Cheng Tai. Domain decomposition and multigrid methods for obstacle problems. *Lecture Notes in Computer Science*, 2329:345–352, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2329/23290345.htm; http://link.springer-ny.com/link/service/series/0558/papers/2329/23290345.pdf`.

Tai:2003:SND

[Tai03] Xue-Cheng Tai. Some new domain decomposition and multigrid methods for variational inequalities. In *Domain decomposition methods in science and engineering*, pages 323–330 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Tai:2005:NPI

[Tai05] Xue-Cheng Tai. Nonlinear positive interpolation operators for analysis with multilevel grids. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 477–484. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Tallec:1993:NND

[Tal93] Patric Le Tallec. Neumann-Neumann domain decomposition algorithms for solving 2D elliptic problems with nonmatching grids. *East-West Journal of Numerical Mathematics*, 1(2):129–146, 1993. CODEN EJNMEA. ISSN 0928-0200.

Tarvainen:1994:BRM

[Tar94] Pasi Tarvainen. *Block relaxation methods for algebraic obstacle problems with M-matrices: theory and applications*, volume 63 of *Bericht [Report]*. Universität Jyväskylä Mathematisches Institut, Jyväskylä, Finland, 1994. ISBN 951-34-0383-1. ii + 111 pp. Dissertation, University of Jyväskylä, Jyväskylä, 1994.

Tan:1997:DDP

[TB97] K. H. Tan and M. J. A. Borsboom. Domain decomposition with patched subgrids. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 117–124. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Tong:1991:DDP

[TCK91] Charles H. Tong, Tony F. Chan, and C. C. Jay Kuo. A domain decomposition preconditioner based on a change to a multilevel nodal basis. *SIAM Journal on Scientific and Statistical Computing*, 12 (6), 1991.

Tavakoli:2007:NPG

[TD07] Rohallah Tavakoli and Parviz Davami. A new parallel Gauss–Seidel method based on alternating group explicit method and domain decomposition method. *Applied Mathematics and Computation*, 188 (1):713–719, May 1, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Tavakoli:2008:FMN

[TD08] Rohallah Tavakoli and Parviz Davami. A fast method for numerical simulation of cast-

ing solidification. *Communications in Numerical Methods in Engineering*, 24(12):1723–1740, 2008. CODEN CANMER. ISSN 1069-8299.

Temam:1988:SSF

[Tem88] Roger Temam. Survey of the status of finite element methods for partial differential equations. In *Finite elements (Hampton, VA, 1986)*, ICASE/NASA LaRC Ser., pages 1–33. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1988.

Tartakovsky:2004:EPR

[TG04] Daniel M. Tartakovsky and Alberto Guadagnini. Effective properties of random composites. *SIAM Journal on Scientific Computing*, 26(2):625–635 (electronic), 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tran:2010:PPE

[TGSS10] T. Tran, Q. T. Le Gia, I. H. Sloan, and E. P. Stephan. Preconditioners for pseudodifferential equations on the sphere with radial basis functions. *Numerische Mathematik*, 115 (1):141–163, 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Tourrette:2001:ABL

[TH01] L. Tourrette and L. Halpern, editors. *Absorbing boundaries and layers, domain decomposition methods*. Nova Science Publishers Inc., Huntington, NY, USA, 2001. ISBN 1-56072-940-6. iv + 382 pp. Applications to large scale computers, With 1 CD-ROM containing errata.

Thanh:1995:DDM

[Tha95] Tran Thanh. Domain decomposition methods for the Galerkin boundary element approximation applied to screen and crack problems. In *Analysis and mechanics of continuous media (Ho Chi Minh City, 1995)*, volume 3 of *Publ. HoChiMinh City Math. Soc.*, pages 355–368. HoChiMinh City Math. Soc., Ho Chi Minh City, Vietname, 1995.

Thess:1998:PMP

[The98] Michael Thess. Parallel multilevel preconditioners for thin smooth shell finite element analysis. *Numerical Linear Algebra with Applications*, 5(5): 401–440 (1999), 1998. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic). PRISM '97 (Nijmegen).

Thomas:1991:DDE

[Tho91] J.-M. Thomas. Décomposition de domaines et éléments finis. (French) [Domain decomposition and finite elements]. In *Mathématiques appliquées aux sciences de l'ingénieur (Santiago, 1989). (French) [Ap-*

plied mathematics in engineering science], pages 395–410. Cépaduès, Toulouse, France, 1991.

Tidriri:1992:CAM

[Tid92] Moulay Driss Tidriri. *Couplage d'approximations et de modèles de types différents dans le calcul d'écoulements externes. (French) [Coupling of approximations and of models of different types in external flows]*. Institut National de Recherche en Informatique et en Automatique (INRIA), Rocquencourt, France, 1992. ISBN 2-7261-0737-0. xii + 366 pp. Thèse, Université de Paris IX (Paris-Dauphine), Paris, 1992.

Tidriri:1995:DDC

[Tid95] Moulay D. Tidriri. Domain decomposition for compressible Navier–Stokes equations with different discretizations and formulations. *Journal of computational physics*, 119(2): 271–282, 1995. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Tidriri:2001:DSN

[Tid01] M. D. Tidriri. Development and study of Newton–Krylov–Schwarz algorithms. *International Journal of Computational Fluid Dynamics*, 15 (2):115–126, 2001. CODEN IJCFEC. ISSN 1061-8562.

Tiwari:2000:AMR

[Tiw00] S. Tiwari. Application of moment realizability criteria for the coupling of the Boltzmann and Euler equations. *Transport Theory Statist. Phys.*, 29 (7):759–783, 2000. CODEN TTSPB4. ISSN 0041-1450.

Tai:1997:CDS

[TJDE97] Xue-Cheng Tai, Torbjørn O. Widnes Johansen, Helge K. Dahle, and Magne S. Espedal. A characteristic domain splitting method. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 317–323. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Toselli:2001:FDD

[TK01] Andrea Toselli and Axel Klawonn. A FETI domain decomposition method for edge element approximations in two dimensions with discontinuous coefficients. *SIAM Journal on Numerical Analysis*, 39(3):932–956, June 2001. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/36137`.

Tiwari:2009:PPH

[TKH09] Sudarshan Tiwari, Axel Klar, and Steffen Hardt. A particle-particle hybrid method for kinetic and continuum equations. *Journal of computa-*

tional physics, 228(18):7109–7124, 2009. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic).

Tezduyar:1988:EEI

[TL88] T. E. Tezduyar and J. Liou. Element-by-element and implicit-explicit finite element formulations for computational fluid dynamics. In Roland Glowinski, Gene H. Golub, Gérard A. Meurant, and Jacques Périaux, editors, *First International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1988.

Tallec:1994:CBN

[TM94] P. Le Tallec and F. Mallinger. Couplage Boltzmann/Navier–Stokes. In *R.C.P. 25, Vol. 46 (French) (Strasbourg, 1992/1994)*, volume 1994/29 of *Prépubl. Inst. Rech. Math. Av.*, pages 81–105. Univ. Louis Pasteur, Strasbourg, France, 1994.

Tallec:1997:AMD

[TM97] Patrick Le Tallec and François Mallinger. Adaptive multimodel domain decomposition in fluid mechanics. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 411–425. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Tse:2001:SDD

[TMNF01] K. L. Tse, A. Mahalov, B. Nicolaenko, and H. J. Fernando. A spectral domain decomposition method and its application to the simulation of shear-stratified turbulence. In *Fluid mechanics and the environment: dynamical approaches (Ithaca, NY, 1999)*, volume 566 of *Lecture Notes in Phys.*, pages 353–378. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001.

Takagi:1987:NAE

[TMS87] Toshiyuki Takagi, Kazuyoshi Miki, and Hiroki Sano. New approach to electron beam analysis using a domain decomposition and overlapping method in a three-dimensional boundary-fitted coordinate system. *Applied Numerical Mathematics: Transactions of IMACS*, 3(4):305–316, August 1987. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Tallec:1994:BDD

[TMV94] Patrick Le Tallec, Jan Mandel, and Marina Vidrascu. Balancing domain decomposition for plates. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 515–524. AMS, Providence, RI, USA, 1994.

Tallec:1998:NND

[TMV98] Patrick Le Tallec, Jan Mandel, and Marina Vidrascu. A Neumann–Neumann domain decomposition algorithm for solving plate and shell problems. *SIAM Journal on Numerical Analysis*, 35(2):836–867, April 1998. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/29101`.

Torre:1994:DDM

[Tor94] B. Torre. Domain decomposition method for fourth order equations. *Applied Mathematics Letters*, 7(3):39–43, 1994. CODEN AMLEEL. ISSN 0893-9659 (print), 1873-5452 (electronic).

Toselli:2004:DDM

[Tos04] Andrea Toselli. Domain decomposition methods of dual-primal FETI type for edge element approximations in three dimensions. *Comptes Rendus Mathématique. Académie des Sciences. Paris*, 339(9):673–678, 2004. ISSN 1631-073X.

Tourette:2001:ABC

[Tou01] L. Tourette. Artificial boundary conditions for the linearized compressible Navier–Stokes equations [MR1481883]. In *Absorbing boundaries and layers, domain decomposition methods*, pages 144–180. Nova Sci. Publ., Huntington, NY, USA, 2001.

Tzaferopoulos:1993:DCS

[TP93] M. A. Tzaferopoulos and P. D. Panagiotopoulos. Delamination of composites as a substationarity problem: numerical approximation and algorithms. *Computer Methods in Applied Mechanics and Engineering*, 110(1–2):63–85, 1993. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Tu:2008:BED

[TP08] B. Thanh Tu and V. Popov. Boundary element dual reciprocity method with overlapping sub-domains. In *Boundary elements and other mesh reduction methods XXX*, volume 47 of *WIT Trans. Model. Simul.*, pages 179–187. WIT Press, Southampton, UK, 2008.

Tallec:1993:DDM

[TR93] P. Le Tallec and J. A. Sousa Rodrigues. Domain decomposition method with nonmatching grids applied to fluid dynamics. In *Finite elements in fluids, Part I, II (Barcelona, 1993)*, pages 418–426. Centro Internac. Métodos Numér. Ing., Barcelona, Spain, 1993.

Tran:2000:PIC

[Tra00] Thanh Tran, editor. *Proceedings of the 1999 International Conference on Computational Techniques and Ap-*

plications. Australian Mathematical Society, Canberra, ACT, Australia, 2000. CODEN AJNOA2. ISSN 1446-1811 (print), 1446-8735 (electronic). Held at the Australian National University, Canberra, September 20–22, 1999, ANZIAM J. **42** (2000), (C).

Trotsenko:1996:ADD

[Tro96a] V. A. Trotsenko. Application of the domain decomposition method to a nonlinear problem in a variational formulation. *Dopov. Nats. Akad. Nauk Ukraï ni*, 4(??):34–38, 1996. ISSN 0868-8044.

Trotta:1996:MFE

[Tro96b] R. L. Trotta. Multidomain finite elements for advection–diffusion equations. *Applied Numerical Mathematics: Transactions of IMACS*, 21 (1):91–118, June 6, 1996. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/apnum/cas_sub/browse/browse.cgi?year=1996&volume=21&issue=1&aid=679`.

Trufanov:1985:MDD

[Tru85] O. D. Trufanov. A method of domain decomposition for the Helmholtz equation with a complex parameter. In *Methods of numerical and applied mathematics (Russian)*, pages 136–143. Akad. Nauk SSSR Vychisl. Tsentr, Moscow, USSR, 1985.

Tallec:1991:DDM

[TRV91] Patrick Le Tallec, Yann-Hervé De Roeck, and Marina Vidrascu. Domain-decomposition methods for large linearly elliptic three dimensional problems. *J. of Computational and Applied Mathematics*, 34, 1991. Elsevier Science Publishers, Amsterdam.

Tselishcheva:2001:DDF

[TS01] Irina V. Tselishcheva and Grigorii I. Shishkin. A domain decomposition finite difference method for singularly perturbed elliptic equations in composed domains. In *Numerical analysis and its applications (Rousse, 2000)*, volume 1988 of *Lecture Notes in Comput. Sci.*, pages 756–763. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001.

Tu:2003:SFE

[TS03] Xuemin Tu and Marcus Sarkis. Singular function enhanced mortar finite element. In *Domain decomposition methods in science and engineering*, pages 475–482 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Tse:2000:SPC

[Tse00] K. L. Tse. Simulation of penetrative convection with adap-

tive spectral domain decomposition method. *Applied Numerical Mathematics: Transactions of IMACS*, 33(1–4): 267–274, May 2000. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.nl/gej-ng/29/17/21/61/27/53/abstract.html; http://www.elsevier.nl/gej-ng/29/17/21/61/27/53/article.pdf`.

Tsui:1996:PDD

[Tsu96] Wai Kin Tsui. Preconditioned domain decomposition methods for non-self-adjoint elliptic problems. *Southeast Asian Bull. Math.*, 20(3):109–116, 1996. ISSN 0218-0006. Conference on Scientific Computation '94 (Shatin, 1994).

Tai:1999:ASD

[TT99a] Xue-Cheng Tai and Paul Tseng. An asynchronous space decomposition method. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 348–358 (electronic). DDM.org, Augsburg, 1999.

Tallec:1999:CAD

[TT99b] P. Le Tallec and M. D. Tidriri. Convergence analysis of domain decomposition algorithms with full overlapping for the advection-diffusion problems. *Mathematics of Computation*, 68(226): 585–606, April 1999. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/jourcgi/jour-pbprocess?fn=110&arg1=S0025-5718-99-01030-3&u=/mcom/1999-68-226/`.

Tsynkov:2001:CPM

[TT01] Semyon Tsynkov and Eli Turkel. A Cartesian perfectly matched layer for the Helmholtz equation. In *Absorbing boundaries and layers, domain decomposition methods*, pages 279–309. Nova Sci. Publ., Huntington, NY, USA, 2001.

Tu:2007:BAF

[Tu07] Xuemin Tu. A BDDC algorithm for flow in porous media with a hybrid finite element discretization. *Electronic Transactions on Numerical Analysis*, 26:146–160, 2007. ISSN 1068-9613 (print), 1097-4067 (electronic).

Tutberidze:2008:MDD

[Tut08] Mikheil Tutberidze. Multiple domain decomposition for Bitsadze-Samarski nonlocal boundary value problem. *International Journal of Pure and Applied Mathematics*, 49 (3):323–328, 2008. ISSN 1311-8080.

Trompert:1991:SRM

[TV91] R. A. Trompert and J. G. Verwer. A static-regridding method for two-dimensional

parabolic partial differential equations. *Applied Numerical Mathematics: Transactions of IMACS*, 8(1):65–90, August 1991. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Timmermans:1993:SMA

[Tv93] L. J. P. Timmermans and F. N. van de Vosse. Spectral methods for advection-diffusion problems. In *Numerical methods for advection-diffusion problems*, volume 45 of *Notes Numer. Fluid Mech.*, pages 171–194. Vieweg & Son, Braunschweig, Germany, 1993.

Tallec:1999:ESM

[TV99] Patrick Le Tallec and Marina Vidrascu. Efficient solution of mechanical and biomechanical problems by domain decomposition. *Numerical Linear Algebra with Applications*, 6(7):599–616, October/November 1999. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic). URL `http://www3.interscience.wiley.com/cgi-bin/abstract/68502743/START; http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=68502743&PLACEBO=IE.pdf`.

Tsynkov:2001:ITE

[TV01] Semyon V. Tsynkov and Veer N. Vatsa. An improved treatment of external boundary conditions for three-dimensional flow computations [AIAA J. **36** (1998), no. 11, 1998–2004]. In *Absorbing boundaries and layers, domain decomposition methods*, pages 181–200. Nova Sci. Publ., Huntington, NY, USA, 2001.

Toselli:2004:DDP

[TV04] Journal Andrea Toselli and Xavier Vasseur. Domain decomposition preconditioners of Neumann–Neumann type for hp-approximations on boundary layer meshes in three dimensions. *IMA Journal of Numerical Analysis*, 24(1):123–156, January 2004. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL `http://www3.oup.co.uk/imanum/hdb/Volume_24/Issue_01/240123.sgm.abs.html; http://www3.oup.co.uk/imanum/hdb/Volume_24/Issue_01/pdf/240123.pdf`.

Tang:2007:CDD

[TW07] Huazhong Tang and Gerald Warnecke. On convergence of a domain decomposition method for a scalar conservation law. *SIAM Journal on Numerical Analysis*, 45(4):1453–1471, ???? 2007. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Tai:1999:SCM

[TX99] Xue-Cheng Tai and Jinchao Xu. Subspace correction meth-

ods for convex optimization problems. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 130–139 (electronic). DDM.org, Augsburg, 1999.

Tatsumi:1998:OOA

[TY98] M. Tatsumi and A. Yamamoto. Object-oriented approach for an iterative calculation method and its parallelization with domain decomposition method. *Lecture Notes in Computer Science*, 1505:1–??, 1998. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Tian:2007:ODD

[TY07] Min Tian and Dan Ping Yang. Overlapping domain decomposition parallel finite difference algorithm for a wave equation. *J. Shandong Univ. Nat. Sci.*, 42(2):11, 2007. ISSN 1671-9352.

Ulbrich:2007:GSM

[Ulb07] Stefan Ulbrich. Generalized SQP methods with "parareal" time-domain decomposition for time-dependent PDE-constrained optimization. In *Real-time PDE-constrained optimization*, volume 3 of *Comput. Sci. Eng.*, pages 145–168. SIAM, Philadelphia, PA, USA, 2007.

Utzmann:2006:HDD

[USDM06] Jens Utzmann, Thomas Schwartzkopff, Michael Dumbser, and Claus-Dieter Munz. Heterogeneous domain decomposition for numerical aeroacoustics. In *Multifield problems in solid and fluid mechanics*, volume 28 of *Lect. Notes Appl. Comput. Mech.*, pages 429–459. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006.

Vabishchevich:1990:IMD

[Vab90] P. N. Vabishchevich. Iterative methods of domain decomposition with overlap for elliptic boundary value problems. *Differentsial'nye Uravneniya*, 26(7):1197–1207, 1286, 1990. ISSN 0374-0641.

Vabishchevich:1991:NSE

[Vab91] P. N. Vabishchevich. Numerical solution of elliptic boundary value problems on composite grids. *Mat. Model.*, 3 (8):112–123, 1991. ISSN 0234-0879.

Vabishchevich:1996:DSD

[Vab96] P. N. Vabishchevich. Difference schemes of domain decomposition for nonstationary convection-diffusion problems. *Differ. Uravn.*, 32(7):923–927, 1005, 1996. ISSN 0374-0641.

Vabishchevich:2008:DDM

[Vab08] P. N. Vabishchevich. Domain decomposition methods

with overlapping subdomains for the time-dependent problems of mathematical physics. *Computational Methods in Applied Mathematics*, 8(4):393–405, 2008. ISSN 1609-4840.

Vajtersic:1993:AEP

[Vaj93] Marián Vajteršic. *Algorithms for elliptic problems*, volume 58 of *Mathematics and its Applications (East European Series)*. Kluwer Academic Publishers, Norwell, MA, USA, and Dordrecht, The Netherlands, 1993. ISBN 0-7923-1918-4. xviii + 292 pp. Efficient sequential and parallel solvers, Translated from the 1988 Slovak edition by Jozef Dravecký.

VanderWijngaart:1993:EID

[Van93] Rob F. Van der Wijngaart. Efficient implementation of a 3-Dimensional ADI method on the iPSC/860. In IEEE [IEE93], pages 102–111. ISBN 0-8186-4340-4 (paperback), 0-8186-4341-2 (microfiche), 0-8186-4342-0 (hardcover), 0-8186-4346-3 (CD-ROM). ISSN 1063-9535. LCCN QA76.5 .S96 1993.

vanderVorst:2009:IKM

[van09] Henk A. van der Vorst. *Iterative Krylov methods for large linear systems*, volume 13 of *Cambridge Monographs on Applied and Computational Mathematics*. Cambridge University Press, Cambridge, UK, 2009. ISBN 0-521-18370-7. xiv + 221 pp. Reprint of the 2003 original.

Varga:1962:MIA

[Var62] Richard S. Varga. *Matrix Iterative Analysis*. Prentice-Hall, Englewood Cliffs, N.J., 1962. 322 pp. LCCN QA263 .V3 1962.

Vassilevski:1986:MMS

[Vas86] Panayot Vassilevski. Multigrid method in subspace and domain partitioning in the discrete solution of elliptic problems. In *Multigrid methods, II (Cologne, 1985)*, volume 1228 of *Lecture Notes in Math.*, pages 301–314. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1986.

Vasilevskii:1990:DDM

[Vas90] Yu. V. Vasilevskiĭ. The domain decomposition method with approximate solution of subproblems. In *Numerical methods and software (Russian)*, pages 23–29. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, Russia, 1990.

Vasilevskii:1992:DDM

[Vas92] Yu. V. Vasilevskiĭ. The domain decomposition method with application of continuation operators for a difference function. In *Numerical methods and mathematical modeling (Russian)*, pages 21–34. Ross. Akad. Nauk Inst. Vy-

chisl. Mat., Moscow, Russia, 1992.

vandenEshof:2004:IKS

[vdES04] Jasper van den Eshof and Gerard L. G. Sleijpen. Inexact Krylov subspace methods for linear systems. *SIAM Journal on Matrix Analysis and Applications*, 26(1):125–153 (electronic), 2004. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Vandewalle:2005:OOS

[VG05] Stefan Vandewalle and Martin J. Gander. Optimized overlapping Schwarz methods for parabolic PDEs with time-delay. In *Domain decomposition methods in science and engineering*, volume 40 of *Lect. Notes Comput. Sci. Eng.*, pages 291–298. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005.

Vozovoi:1994:MDF

[VIA94] L. Vozovoi, M. Israeli, and A. Averbuch. Multi-domain Fourier algorithms for parallel solution of the Navier–Stokes equations. In *Domain decomposition methods in scientific and engineering computing (University Park, PA, 1993)*, volume 180 of *Contemp. Math.*, pages 539–546. AMS, Providence, RI, USA, 1994.

Vasilevskii:2005:CT

[VIT05] Yu. V. Vasilevskiĭ, V. P. Il′in, and E. E. Tyrtyshnikov. Computational techniques. In *Current problems in computational mathematics and mathematical modeling. Vol. 1 (Russian)*, pages 100–148. Nauka, Moscow, Russia, 2005.

Vodicka:2010:SLM

[VMP10] R. Vodička, V. Mantič, and F. París. SGBEM with Lagrange multipliers applied to elastic domain decomposition problems with curved interfaces using non-matching meshes. *International Journal for Numerical Methods in Engineering*, 83(1):91–128, 2010. CODEN IJNMBH. ISSN 0029-5981.

Voevodin:1983:VML

[Voe83] V. V. Voevodin, editor. *Vychislitelnye metody lineinoi algebry*. Akad. Nauk SSSR Otdel Vychisl. Mat., Moscow, Russia, 1983.

Vidal:2008:BQI

[VPDH08] Yolanda Vidal, Núria Parés, Pedro Díez, and Antonio Huerta. Bounds for quantities of interest and adaptivity in the element-free Galerkin method. *International Journal for Numerical Methods in Engineering*, 76(11):1782–1818, 2008. CODEN IJNMBH. ISSN 0029-5981.

Vanek:1997:TLM

[VTBK97] Petr Vaněk, Radek Tezaur, Marian Brezina, and Jitka Křížková. Two-level method with coarse space size independent convergence. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 233–240. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Vulkov:2001:NAA

[VWY01] Lubin Vulkov, Jerzy Waśniewski, and Plamen Yalamov, editors. *Numerical analysis and its applications*, volume 1988 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001. ISBN 3-540-41814-8. Papers from the 2nd International Conference (NAA 2000) held at the University of Rousse, Rousse, June 11–15, 2000.

Wang:2003:QAD

[WA03] Shaowen Wang and Marc P. Armstrong. A quadtree approach to domain decomposition for spatial interpolation in Grid computing environments. *Parallel Computing*, 29(10): 1481–1504, October 2003. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Wait:1988:PPF

[Wai88] R. Wait. Partitioning and preconditioning of finite element matrices on the DAP. *Parallel Computing*, 8(1–3):275–284, October 1988. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Wang:2001:NCP

[Wan01] Shou Cheng Wang. A note on the convergence of the parallel iteration domain decomposition method. *Math. Appl. (Wuhan)*, 14(4):17–20, 2001. ISSN 1001-9847.

Wang:2006:RFP

[Wan06] Shou Cheng Wang. Relaxation factors of the parallel iterative domain decomposition method. *Numer. Math. J. Chinese Univ.*, 28(2):97–102, 2006. ISSN 1000-081X.

Wait:1988:FEA

[WAW88] R. Wait, S. E. Audish, and C. J. Willis. Finite element analysis on a highly parallel multiprocessor architecture. In *Numerical mathematics, Singapore 1988*, volume 86 of *Internat. Schriftenreihe Numer. Math.*, pages 507–518. Birkhäuser Verlag, Basel, Switzerland, 1988.

Wrobel:1991:CMF

[WB91] L. C. Wrobel and C. A. Brebbia, editors. *Computational modelling of free and moving boundary problems. Vol. 1*. Computational Mechanics Publications, Southampton, UK, 1991. ISBN 1-85312-157-6. Fluid flow.

Wan:2003:WPA

[WC03] W. L. Wan and T. F. Chan. Wave propagation analysis of multigrid methods for convection dominated problems. In *Domain decomposition methods in science and engineering*, pages 171–181 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Wyrzykowski:2004:PPA

[WDPW04] Roman Wyrzykowski, Jack Dongarra, Marcin Paprzycki, and Jerzy Waśniewski, editors. *Parallel processing and applied mathematics*, volume 3019 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2004. ISBN 3-540-21946-3. Revised papers from the 5th International Conference (PPAM 2003) held in Częstochowa, September 7–10, 2003.

Wendland:2004:SLG

[Wen04] Holger Wendland. Solving large generalized interpolation problems efficiently. In *Advances in constructive approximation: Vanderbilt 2003*, Mod. Methods Math., pages 509–518. Nashboro Press, Brentwood, TN, 2004.

Wendland:2006:CAR

[Wen06] Holger Wendland. Computational aspects of radial basis function approximation. In *Topics in multivariate approximation and interpolation*, volume 12 of *Stud. Comput. Math.*, pages 231–256. Elsevier B. V., Amsterdam, 2006.

Wang:2010:ODD

[WGZ+10] Tao Wang, Shuping Gao, Ling Zhang, Yan Wu, Xiaowei He, Yanbin Hou, Heyu Huang, and Jie Tian. Overlap domain decomposition method for bioluminescence tomography (BLT). *Int. J. Numer. Methods Biomed. Eng.*, 26(5): 511–523, 2010. ISSN 2040-7939.

White:1987:MPI

[Whi87] R. E. White. Multisplittings and parallel iterative methods. In *Proceedings of the first world congress on computational mechanics (Austin, Tex., 1986)*, volume 64(1–3) of *Computer Methods in Applied Mechanics and Engineering*, pages 567–577. Elsevier, Amsterdam, The Netherlands, 1987. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

White:2000:DDS

[Whi00a] R. E. White. Domain decomposition splittings. *Linear Algebra and its Applications*, 316(1–3):105–112, September 1, 2000. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.elsevier.nl/gej-ng/10/30/19/134/24/31/abstract.html`; `http:`

//www.elsevier.nl/gej-ng/10/30/19/134/24/31/article.pdf.

Whiteman:2000:MFE

[Whi00b] J. R. Whiteman, editor. *The mathematics of finite elements and applications. X. MAFELAP 1999*. Elsevier Science Ltd., Oxford, UK, 2000. ISBN 0-08-043568-8. Papers from the 10th Conference held at Brunel University, Uxbridge, June 22–25, 1999.

Widlund:1984:IME

[Wid84] Olof B. Widlund. Iterative methods for elliptic problems on regions partitioned into substructures and the biharmonic Dirichlet problem. In R. Glowinski and J. L. Lions, editors, *Computing Methods in Applied Sciences and Engineering, VI*, pages 33–45. North-Holland Publishing Co., Amsterdam, The Netherlands, 1984.

Widlund:1987:ETF

[Wid87] Olof B. Widlund. An extension theorem for finite element spaces with three applications. In Wolfgang Hackbusch and Kristian Witsch, editors, *Numerical Techniques in Continuum Mechanics*, volume 16 of *Notes on Numerical Fluid Mechanics*, pages 110–122. Vieweg & Son, Braunschweig, Germany, 1987. Proceedings of the Second GAMM-Seminar, Kiel, January, 1986.

Widlund:1988:CSD

[Wid88a] Olof B. Widlund. A comparison of some domain decomposition and iterative refinement algorithms for elliptic finite element problems. Technical Report BSC 88/15, IBM Bergen Scientific Centre, Thormøhlensgaten 55, N-5006 Bergen, Norway, 1988.

Widlund:1988:ISMb

[Wid88b] Olof B. Widlund. Iterative substructuring methods: Algorithms and theory for elliptic problems in the plane. In Roland Glowinski, Gene H. Golub, Gérard A. Meurant, and Jacques Périaux, editors, *First International Symposium on Domain Decomposition Methods for Partial Differential Equations (Paris, 1987)*, pages 113–128. SIAM, Philadelphia, PA, USA, 1988.

Widlund:1988:ISMa

[Wid88c] Olof B. Widlund. Iterative substructuring methods: The general elliptic case. In *Computational Processes and Systems, 6*. Nauka, Moscow, USSR, 1988. Proceedings of Modern Problems in Numerical Analysis, a conference held in Moscow, USSR, September 1986. In Russian, also available from the author, in English.

Widlund:1989:ISE

[Wid89a] Olof B. Widlund. Iterative solution of elliptic finite ele-

ment problems on locally refined meshes. In T. J. Chung and G. R. Karr, editors, *Finite Element Analysis in Fluids*, pages 462–467. University of Alabama in Huntsville Press, Huntsville, AL, USA, 1989. Proceeding of the 7th International Conference on Finite Element Methods in Flow Problems held in Huntsville, Alabama, April 3 – 7, 1989.

Widlund:1989:RCC

[Wid89b] Olof B. Widlund. On the rate of convergence of the classical Schwarz alternating method in the case of more than two subregions. Technical report, Department of Computer Science, Courant Institute, 1989. A revised version in preparation.

Widlund:1989:OIR

[Wid89c] Olof B. Widlund. Optimal iterative refinement methods. In Tony Chan, Roland Glowinski, Jacques Périaux, and Olof Widlund, editors, *Domain Decomposition Methods*. SIAM, Philadelphia, PA, USA, 1989.

Widlund:1989:SDD

[Wid89d] Olof B. Widlund. Some domain decomposition and iterative refinement algorithms for elliptic finite element problems. *Journal of Computational Mathematics*, 7(2):200–208, 1989. CODEN JCMMEB. ISSN 0254-9409. Proceedings of the China - U. S. Seminar on Boundary Integral Equations and Boundary Element Methods in Physics and Engineering, held at the Xi'an Jiaotong University, Xi'an, The People's Republic of China, December 27, 1987 - January 1, 1988.

Widlund:1992:SSM

[Wid92] Olof B. Widlund. Some Schwarz methods for symmetric and nonsymmetric elliptic problems. In Tony F. Chan, David E. Keyes, Gérard A. Meurant, Jeffrey S. Scroggs, and Robert G. Voigt, editors, *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1992.

Widlund:1996:DDM

[Wid96] Olof B. Widlund. Domain decomposition methods for spectral and mortar finite element approximations of elliptic problems. *Zeitschrift für Angewandte Mathematik und Mechanik*, 76(suppl. 1):247–250, 1996. CODEN ZAMMAX. ISSN 0044-2267 (print), 1521-4001 (electronic). ICIAM/GAMM 95 (Hamburg, 1995).

Widlund:1997:PSM

[Wid97] Olof B. Widlund. Preconditioners for spectral and mortar finite element methods. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 19–32. John Wiley and Sons, Ltd.,

New York, London, Sydney, 1997.

Williams:1992:VOMa

[Wil92a] Peter L. Williams. Visibility ordering meshed polyhedra. Technical Report CSRD 1097, University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, January 1992. 28 pp.

Williams:1992:VOMb

[Wil92b] Peter L. Williams. Visibility ordering meshed polyhedra. *ACM Transactions on Graphics*, 11(2):103–126, April 1992. CODEN ATGRDF. ISSN 0730-0301 (print), 1557-7368 (electronic). URL `http://www.acm.org/pubs/toc/Abstracts/0730-0301/130899.html`.

Wirgin:2002:AMR

[Wir02] Armand Wirgin, editor. *Acoustics, mechanics, and the related topics of mathematical analysis*. World Scientific Publishing Co. Inc., River Edge, NJ, USA, 2002. ISBN 981-238-264-X.

Wilhelm:2001:DDM

[WK01] Dirk Wilhelm and Leonhard Kleiser. Domain decomposition method and fast diagonalization solver for spectral element simulations. In *Computational fluid dynamics, 2000 (Kyoto)*, pages 429–434. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001.

Wu:2003:DDA

[WL03] Boying Wu and Xiangning Liu. Domain decomposition adaptive algorithm with wavelet method to trace shock wave. In *Wavelet analysis and its applications (WAA). Vol. 1, 2*, pages 613–619. World Sci. Publ., River Edge, NJ, 2003.

Wong:2006:DDR

[WL06] S. M. Wong and T. S. Li. Domain decomposition with radial basis functions for solving singularity problem. *Dyn. Contin. Discrete Impuls. Syst. Ser. A Math. Anal.*, 13B (suppl.):501–513, 2006. CODEN DCDIS4. ISSN 1201-3390.

Wang:1997:TDE

[WLH97] J. Wang, P. Liewer, and E. Huang. Three-dimensional electromagnetic particle-in-cell with Monte Carlo collision simulations on three MIMD parallel computers. *The Journal of Supercomputing*, 10(4): 331–348, December 1997. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0920-8542&volume=10&issue=4&spage=331; http://www.wkap.nl/oasis.htm/134568`.

Wehner:1995:PDM

[WME+95] M. F. Wehner, A. A. Mirin, P. G. Eltgroth, W. P. Dannevik, C. R. Mechoso, J. D. Farrara, and J. A. Spahr. Performance of a distributed memory finite difference atmospheric general circulation model. *Parallel Computing*, 21(10):1655–1675, November 29, 1995. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/parco/cas_sub/browse/browse.cgi?year=1995&volume=21&issue=10&aid=1020`.

Wohlmuth:2001:DMI

[Woh01] Barbara I. Wohlmuth. *Discretization methods and iterative solvers based on domain decomposition*, volume 17 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001. ISBN 3-540-41083-X (softcover). ISSN 1439-7358. x + 197 pp. LCCN QA402.2.W64 2001.

Wheeler:2008:MCM

[WPT08] Mary F. Wheeler, Gergina Pencheva, and Sunil G. Thomas. Mortar coupling of multiphase flow and reactive transport on non-matching grids. In *Finite volumes for complex applications V*, pages 135–143. ISTE, London, 2008.

Wang:2009:FDA

[WR09] Ting Wang and Hong Xing Rui. A finite difference algorithm of domain decomposition with high accuracy for a parabolic equation. *Numer. Math. J. Chinese Univ.*, 31(2): 109–118, 2009. ISSN 1000-081X.

Wu:2004:DQD

[WS04] Xionghua Wu and Ye Shen. Differential quadrature domain decomposition method for a class of parabolic equations. *Computers and Mathematics with Applications*, 48 (12):1819–1832, 2004. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

Wicke:2009:MBF

[WST09] Martin Wicke, Matt Stanton, and Adrien Treuille. Modular bases for fluid dynamics. *ACM Transactions on Graphics*, 28(3):39:1–39:??, August 2009. CODEN ATGRDF. ISSN 0730-0301 (print), 1557-7368 (electronic).

Wu:1992:DDM

[Wu92] Yun Hai Wu. A domain decomposition method for impulsively started flow around a circular cylinder. *Chinese J. Numer. Math. Appl.*, 14(4): 82–90, 1992. ISSN 0899-4358.

Wang:1997:CBD

[WVE97] Hong Wang, Jan E. Våg, and Magne S. Espedal. A characteristic-based domain decomposition and space-time local refinement method for advection-reaction equations with interfaces. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 325–332. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Wu:1989:DDT

[WW89] Chang Hui Wu and Song Wang. Domain decomposition technique for the continuity equations of semiconductor device models. In *Proceedings of the 3rd International Congress on Computational and Applied Mathematics (Leuven, 1988)*, volume 28 (special issue) of *Journal of Computational and Applied Mathematics*, pages 403–412. Elsevier, Amsterdam, The Netherlands, 1989. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic).

Wang:1997:PDD

[WY97] Junping Wang and Ningning Yan. A parallel domain decomposition procedure for convection diffusion problems. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 333–339. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Wan:2010:NDA

[WZC10] Zhengsu Wan, Baolin Zhang, and Guangnan Cheng. New design and analysis of finite difference domain decomposition algorithm for the two-dimensional heat equation. *J. Syst. Sci. Complex.*, 23(2): 403–412, 2010. ISSN 1009-6124.

Xu:1992:PGM

[XC92] Jinchao Xu and Xiao-Chuan Cai. A preconditioned GMRES method for nonsymmetric or indefinite problems. *Mathematics of Computation*, 59(200):311–319, October 1992. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Xue:1996:CSC

[XCHK96] Wei-Min Xue, Raymond Chan, Daniel Ho, and Yue-Kuen Kwok, editors. *Conference on Scientific Computation '94*. Science Press Beijing, Beijing, 1996. ISSN 0218-0006. Papers from the conference held at the Chinese University of Hong Kong, Shatin, March 17–19, 1994, Southeast Asian Bull. Math. **2**0 (1996), no. 3.

Xu:1995:NSM

[XG95] Chuanju Xu and Liankun Gu. Notes on the spectral methods for fluid dynamics. *J. Math.*

Study, 28(4):1–8, 1995. ISSN 1006-6837.

Xu:2010:CAB

[XGB10] Mei Xu, Robert Gracie, and Ted Belytschko. A continuum-to-atomistic bridging domain method for composite lattices. *International Journal for Numerical Methods in Engineering*, 81(13):1635–1658, 2010. CODEN IJNMBH. ISSN 0029-5981.

Xanthis:1994:DDMb

[XO94a] Leonidas S. Xanthis and Evgueni E. Ovtchinnikov. Domain decomposition and the method of arbitrary lines for elliptic free boundary problems. In *Hellenic European research on mathematics and informatics '94, Vol. 1, 2 (Athens, 1994)*, pages 193–203. Hellenic Mathematical Society, Athens, Greece, 1994.

Xanthis:1994:DDMa

[XO94b] Leonidas S. Xanthis and Evgueni E. Ovtchinnikov. Domain decomposition and the method of arbitrary lines for elliptic problems. In *Hellenic European research on mathematics and informatics '94, Vol. 1, 2 (Athens, 1994)*, pages 181–192. Hellenic Mathematical Society, Athens, Greece, 1994.

Xu:1994:DDM

[XS94] Xue Jun Xu and Shu Min Shen. Domain decomposition methods for obstacle problems. *Numer. Math. J. Chinese Univ.*, 16(2):186–194, 1994. ISSN 1000-081X.

Xie:2009:DDP

[XS09] Huan Tian Xie and Liang Shen. A domain decomposition parallel scheme for Burgers' equation. *Numer. Math. J. Chinese Univ.*, 31(2):156–168, 2009. ISSN 1000-081X.

Xiu:2004:TSN

[XT04] Dongbin Xiu and Daniel M. Tartakovsky. A two-scale nonperturbative approach to uncertainty analysis of diffusion in random composites. *Multiscale Model. Simul.*, 2(4):662–674 (electronic), 2004. ISSN 1540-3459 (print), 1540-3467 (electronic).

Xu:2010:TLD

[XTW10] Jing Xu, Xue-Cheng Tai, and Li-Lian Wang. A two-level domain decomposition method for image restoration. *Inverse Probl. Imaging*, 4(3):523–545, 2010. ISSN 1930-8337.

Xu:1989:TMM

[Xu89] Jinchao Xu. *Theory of Multilevel Methods*. PhD thesis, Cornell University, May 1989.

Xu:1991:CCW

[Xu91] Jinchao Xu. Counterexamples concerning a weighted L^2 projection. *Mathematics of Computation*, 57(196):563–568, October 1991. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Xu:1992:IMS

[Xu92a] Jinchao Xu. Iterative methods by space decomposition and subspace correction. *SIAM Review*, 34(4):581–613, December 1992. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Xu:1992:NCI

[Xu92b] Jinchao Xu. A new class of iterative methods for nonselfadjoint or indefinite problems. *SIAM Journal on Numerical Analysis*, 29(2):303–319, April 1992. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Xu:1996:DDM

[Xu96] Chuan Ju Xu. A domain decomposition method for solving generalized viscous-inviscid coupled equations. *Xiamen Daxue Xuebao Ziran Kexue Ban*, 35(2):168–173, 1996. CODEN HMHHAF. ISSN 0438-0479.

Xu:1997:BNR

[Xu97] Jinchao Xu. Book news & reviews: Domain Decomposition by B. Smith, P. Björstad, and W. Gropp. *IEEE Computational Science & Engineering*, 4(3):85, July/September 1997. CODEN ISCEE4. ISSN 1070-9924 (print), 1558-190X (electronic). URL `http://dlib.computer.org/cs/books/cs1997/pdf/c3083.pdf`.

Xu:2009:OAD

[Xu09] Jinchao Xu. Optimal algorithms for discretized partial differential equations. In *ICIAM 07—6th International Congress on Industrial and Applied Mathematics*, pages 409–444. Eur. Math. Soc., Zürich, 2009.

Xu:1998:SND

[XZ98] Jinchao Xu and Jun Zou. Some nonoverlapping domain decomposition methods. *SIAM Review*, 40(4):857–914, December 1998. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/30680`.

Xu:1999:SLP

[XZ99] Jinchao Xu and Aihui Zhou. Some local and parallel properties of finite element discretizations. In *Eleventh International Conference on Domain Decomposition Methods (London, 1998)*, pages 140–147 (electronic). DDM.org, Augsburg, 1999.

Yang:1996:PIN

[Yan96] Daoqi Yang. A parallel iterative nonoverlapping domain decomposition procedure for elliptic problems. *IMA Journal of Numerical Analysis*, 16(1):75–91, January 1996. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).

URL `http://www3.oup.co.uk/imanum/hdb/Volume_16/Issue_01/160075.sgm.abs.html`.

Yang:2000:DDA

[Yan00] Danping Yang. Domain decomposition algorithm for a new characteristic mixed finite element method for compressible miscible displacement. In *Numerical treatment of multiphase flows in porous media (Beijing, 1999)*, volume 552 of *Lecture Notes in Phys.*, pages 362–372. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000.

Yang:2002:PDD

[Yan02] Danping Yang. A parallel domain decomposition algorithm of mixed element equation for second-order elliptic Dirichlet boundary value problem. *Applied Mathematics and Computation*, 129(2–3): 375–389, July 10, 2002. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Yang:2010:PDD

[Yan10] Danping Yang. Parallel domain decomposition procedures of improved D-D type for parabolic problems. *Journal of Computational and Applied Mathematics*, 233(11): 2779–2794, 2010. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic).

Yang:2010:FID

[YCC10] Chao Yang, Jianwen Cao, and Xiao-Chuan Cai. A fully implicit domain decomposition algorithm for shallow water equations on the cubed-sphere. *SIAM Journal on Scientific Computing*, 32(1):418–438, ???? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yang:2004:SAA

[YD04] Min Yang and Qikui Du. A Schwarz alternating algorithm for elliptic boundary value problems in an infinite domain with a concave angle. *Applied Mathematics and Computation*, 159(1):199–220, 2004. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Ye:1998:DDLa

[Ye98a] X. Ye. Domain decomposition for a least-square finite element method for second order elliptic problem. *Applied Mathematics and Computation*, 91(2–3):233–242, May 1, 1998. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.elsevier.com/cas/tree/store/amc/sub/1998/91/2-3/6014.pdf; http://www.elsevier.com/cgi-bin/cas/tree/store/amc/cas_sub/browse/browse.cgi?year=1998&volume=91&issue=2-3&aid=6014`.

Ye:1998:DDLb

[Ye98b] X. Ye. Domain decomposition for least-squares finite element methods for the Stokes equations. *Applied Mathematics and Computation*, 97 (1):45–53, December 1, 1998. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.elsevier.com/cas/tree/store/amc/sub/1998/97/1/6142.pdf; http://www.elsevier.com/cgi-bin/cas/tree/store/amc/cas_sub/browse/browse.cgi?year=1998&volume=97&issue=1&aid=6142`.

Guo:2009:CGL

[yGjW09] Ben yu Guo and Tian jun Wang. Composite generalized Laguerre–Legendre spectral method with domain decomposition and its application to Fokker–Planck equation in an infinite channel. *Mathematics of Computation*, 78 (265):129–151, January 2009. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/journals/mcom/2009-78-265/S0025-5718-08-02152-2/home.html; http://www.ams.org/journals/mcom/2009-78-265/S0025-5718-08-02152-2/S0025-5718-08-02152-2.pdf`.

Yates:2003:PIC

[YH03] R. Yates and I. Herrera. Parallel implementation of collocation methods. In *Domain decomposition methods in science and engineering*, pages 273–278 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Yuan:1996:LBP

[YHBM96] X. Yuan, B. He, D. Balsara, and R. Melhem. A load balancing package for domain decomposition on distributed memory systems. *Lecture Notes in Computer Science*, 1067:547–??, 1996. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Yotov:2001:ISP

[Yot01] Ivan Yotov. Interface solvers and preconditioners of domain decomposition type for multiphase flow in multiblock porous media. In *Scientific computing and applications (Kananaskis, AB, 2000)*, volume 7 of *Adv. Comput. Theory Pract.*, pages 157–167. Nova Sci. Publ., Huntington, NY, USA, 2001.

Yserentant:1985:HBF

[Yse85] Harry Yserentant. Hierarchical bases of finite-element spaces in the discretization of nonsymmetric elliptic boundary value problems. *Computing*, 35:39–49, 1985. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Yserentant:1986:HBG

[Yse86a] Harry Yserentant. Hierarchical bases give conjugate gra-

dient type methods a multigrid speed of convergence. *Appl. Math. Comp.*, 19:347–358, 1986.

Yserentant:1986:MLSa

[Yse86b] Harry Yserentant. On the multi-level splitting of finite element spaces. *Numerische Mathematik*, 49:379–412, 1986.

Yserentant:1986:MLSb

[Yse86c] Harry Yserentant. On the multi-level splitting of finite element spaces for indefinite elliptic boundary value problems. *SIAM Journal on Numerical Analysis*, 23(3):581–595, June 1986. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Yserentant:1990:TPB

[Yse90] Harry Yserentant. Two preconditioners based on the multi-level splitting of finite element spaces. *Numerische Mathematik*, 58(2):163–184, 1990.

Yang:2003:CSU

[YSF03] Lingyun Yang, Jennifer M. Schopf, and Ian Foster. Conservative scheduling: Using predicted variance to improve scheduling decisions in dynamic environments. In ACM [ACM03], page ?? ISBN 1-58113-695-1. LCCN ???? URL `http://www.sc-conference.org/sc2003/inter_cal/inter_cal_detail.php?eventid=10687#2; http://www.sc-conference.org/sc2003/paperpdfs/pap236.pdf`.

Yu:1994:DDM

[Yu94] De Hao Yu. A domain decomposition method based on the natural boundary reduction over an unbounded domain. *Math. Numer. Sinica*, 16 (4):448–459, 1994. ISSN 0254-7791.

Yu:1995:RBS

[Yu95] De Hao Yu. The relationship between Steklov–Poincaré operators and natural integral operators and Green functions. *Math. Numer. Sinica*, 17 (3):331–341, 1995. ISSN 0254-7791.

Yu:1996:DND

[Yu96] De Hao Yu. A discretization of a nonoverlapping domain decomposition method for unbounded domains and its convergence. *Math. Numer. Sin.*, 18(3):328–336, 1996. ISSN 0254-7791.

Yu:1997:DDM

[Yu97a] Dehao Yu. Domain decomposition methods for unbounded domains. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 125–132. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Yu:1997:MMN

[Yu97b] Xijun Yu. A multigrid method for nonlinear parabolic prob-

lems. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 241–248. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Yu:1999:NIO

[Yu99a] De-Hao Yu. The natural integral operators and the domain decomposition methods for 3-D exterior problems. In *Advances in numerical mathematics; Proceedings of the Fourth Japan-China Joint Seminar on Numerical Mathematics (Chiba, 1998)*, volume 12 of *GAKUTO Internat. Ser. Math. Sci. Appl.*, pages 163–170. Gakkōtosho, Tokyo, Japan, 1999.

Yu:1999:SPP

[Yu99b] Hongyi Yu. Solving parabolic problems with different time steps in different regions in space based on domain decomposition methods. *Applied Numerical Mathematics: Transactions of IMACS*, 30 (4):475–491, July 1, 1999. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/apnum/cas_sub/browse/browse.cgi?year=1999&volume=30&issue=4&aid=957`.

Yu:2001:LST

[Yu01] Hongyi Yu. A local space-time adaptive scheme in solving two-dimensional parabolic problems based on domain decomposition methods. *SIAM Journal on Scientific Computing*, 23(1):304–322, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/31536`.

Zampieri:1989:IMD

[Zam89] E. Zampieri. Iterative methods for domain decomposition using spectral tau and collocation approximation. *Calcolo*, 26(1):61–91, 1989. CODEN CDABAE. ISSN 0008-0624 (print), 1126-5434 (electronic).

Zampieri:1992:MSC

[Zam92] Elena Zampieri. A multidomain spectral collocation solver for the elasticity problem. In *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations (Norfolk, VA, 1991)*, pages 614–623. SIAM, Philadelphia, PA, USA, 1992.

Zanolli:1987:DDA

[Zan87] P. Zanolli. Domain decomposition algorithms for spectral methods. *Calcolo*, 24(3–4):201–240, 1987. CODEN CDABAE. ISSN 0008-0624 (print), 1126-5434 (electronic).

Zavadskii:1982:MKR

[Zav82] V. Yu. Zavadskiĭ. *Metod konechnykh raznostei v volnovykh zadachakh akustiki.*

Nauka, Moscow, USSR, 1982. 272 pp.

Zhou:1995:OSS

[ZC95a] J. J. Zhou and Moon-Jung Chung. Object-oriented simulation for the superconducting super collider. *Transactions of the Society for Computer Simulation*, 12(1):1–25, March 1995. CODEN TSCSEV. ISSN 0740-6797.

Zhou:1995:IDD

[ZC95b] Shu Zi Zhou and Qiang Cheng. Inexact domain decomposition methods for solving obstacle problems. *Hunan Daxue Xuebao*, 22(6, suppl.):17–20, 1995. CODEN HDAXE3. ISSN 1000-2472.

Zhu:2004:ODD

[ZD04] Wei Zhu and Qi Kui Du. An overlapping domain decomposition method for an anisotropic exterior elliptic problem. *Math. Numer. Sin.*, 26(4):459–472, 2004. ISSN 0254-7791.

Zeng:1996:DDM

[Zen96] Jin Ping Zeng. A domain decomposition method with monotone convergence. *Numer. Math. J. Chinese Univ.*, 18(2):175–182, 1996. ISSN 1000-081X.

Zhu:1987:NMP

[ZG87] You Lan Zhu and Ben Yu Guo, editors. *Numerical methods for partial differential equations*, volume 1297 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1987. ISBN 3-540-18730-8.

Zhang:1991:MML

[ZH91] Sheng Zhang and Hong Ci Huang. Multigrid multi-level domain decomposition. *Journal of Computational Mathematics*, 9(1):17–27, 1991. CODEN JCMMEB. ISSN 0254-9409.

Zhang:1992:PID

[ZH92] Sheng Zhang and Hong Ci Huang. Parallel iterative domain decomposition method for elliptic equation: many subdomains case. *Sci. China Ser. A*, 35(6):690–700, 1992. ISSN 1001-6511.

Zhao:1987:MTF

[Zha87] He Sheng Zhao. The Marcinkiewicz theorem for Fourier series on compact Lie groups. *Chinese Ann. Math. Ser. A*, 8(6):693–702, 1987. ISSN 1000-8314. An English summary appears in Chinese Ann. Math. Ser. B **9** (1988), no. 1, 148–149.

Zhang:1991:SDD

[Zha91] Xuejun Zhang. *Studies in Domain Decomposition: Multilevel Methods and the Biharmonic Dirichlet Problem*. PhD thesis, Courant Institute, New York University, September 1991.

Zhang:1992:PDD

[Zha92a] Sheng Zhang. Preconditioning domain decomposition for three-dimensional problems. *J. Fudan Univ. Natur. Sci.*, 31(2):136–141, 1992. CODEN FHPTAY. ISSN 0427-7104.

Zhang:1992:PIA

[Zha92b] Tie Zhang. A parallel iterative algorithm for solving systems of finite element equations. *J. Northeast Univ. Tech.*, 13 (3):297–301, 1992. CODEN THYPDK. ISSN 0253-4258.

Zhang:1992:DDA

[Zha92c] Xuejun Zhang. Domain decomposition algorithms for the biharmonic Dirichlet problem. In Tony F. Chan, David E. Keyes, Gérard A. Meurant, Jeffrey S. Scroggs, and Robert G. Voigt, editors, *Fifth International Symposium on Domain Decomposition Methods for Partial Differential Equations*. SIAM, Philadelphia, PA, USA, 1992.

Zhang:1992:MSMa

[Zha92d] Xuejun Zhang. Multilevel Schwarz methods. *Numerische Mathematik*, 63(4):521–539, 1992.

Zhang:1992:MSMb

[Zha92e] Xuejun Zhang. Multilevel Schwarz methods for the biharmonic Dirichlet problem. Technical Report CS-TR2907 (UMIACS-TR-92-60), University of Maryland, Department of Computer Science, May 1992. Submitted to SIAM J. Sci. Stat. Comput.

Zhang:1993:OPD

[Zha93] Sheng Zhang. Optimal preconditioning in the domain decomposition method for second-order elliptic equations. *Math. Numer. Sinica*, 15 (2):235–241, 1993. ISSN 0254-7791.

Zhadaeva:1995:DDM

[Zha95] N. G. Zhadaeva. On a domain decomposition method in nonstationary problems of mathematical physics. *Differ. Uravn.*, 31(7):1217–1221, 1270, 1995. ISSN 0374-0641.

Zhang:2006:DDA

[Zha06] Sheng Zhang. On domain decomposition algorithms for covolume methods for elliptic problems. *Computer Methods in Applied Mechanics and Engineering*, 196(1–3):24–32, 2006. CODEN CMMECC. ISSN 0045-7825, 0374-2830.

Zhou:2003:ODD

[ZHL03] X. Zhou, Y. C. Hon, and Jichun Li. Overlapping domain decomposition method by radial basis functions. *Applied Numerical Mathematics: Transactions of IMACS*, 44 (1–2):241–255, January 2003. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Zhou:1997:MPP

[Zho97a] Aihui Zhou. A multiparameter parallel algorithm for local higher accuracy approximation. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 283–288. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Zhou:1997:NDD

[Zho97b] Guohui Zhou. A new domain decomposition method for convection-dominated problems. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 341–348. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Zhou:1997:ASA

[Zho97c] Shuzi Zhou. An additive Schwarz algorithm for a variational inequality. In *Domain decomposition methods in sciences and engineering (Beijing, 1995)*, pages 133–137. John Wiley and Sons, Ltd., New York, London, Sydney, 1997.

Zhu:1995:DDA

[Zhu95] Jing Hui Zhu. A domain decomposition algorithm for use in finite difference methods. *Xiamen Daxue Xuebao Ziran Kexue Ban*, 34(4):517–524, 1995. CODEN HMHHAF. ISSN 0438-0479.

Zhu:2008:DDP

[Zhu08] Yunrong Zhu. Domain decomposition preconditioners for elliptic equations with jump coefficients. *Numerical Linear Algebra with Applications*, 15 (2–3):271–289, ???? 2008. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Zhu:2010:CDD

[Zhu10] Shaohong Zhu. Conservative domain decomposition procedure with unconditional stability and second-order accuracy. *Applied Mathematics and Computation*, 216(11): 3275–3282, August 1, 2010. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Zhang:1996:IDD

[ZL96] Tie Zhang and Bao Kuan Li. Iterative domain decomposition algorithms for solving finite element equations. *J. Northeast. Univ. Nat. Sci.*, 17 (5):571–575, 1996. CODEN DDXKEZ. ISSN 1005-3026.

Zhang:2000:DDP

[ZS00] Huaiyu Zhang and Jiachang Sun. Domain decomposition preconditioners for nonselfconjugate second order elliptic problems. In *Numerical treatment of multiphase flows in porous media (Beijing, 1999)*, volume 552 of *Lecture Notes in Phys.*, pages 409–418. Springer-Verlag, Berlin,

Germany / Heidelberg, Germany / London, UK / etc., 2000.

Zhuang:2001:SGN

[ZS01] Yu Zhuang and Xian-He Sun. Stable, globally non-iterative, non-overlapping domain decomposition parallel solvers for parabolic problems. In ACM [ACM01], page ?? ISBN 1-58113-293-X. LCCN ???? URL `http://www.sc2001.org/papers/pap.pap190.pdf`.

Zhuang:2002:SEI

[ZS02] Yu Zhuang and Xian-He Sun. Stabilized explicit-implicit domain decomposition methods for the numerical solution of parabolic equations. *SIAM Journal on Scientific Computing*, 24(1):335–358, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/38475`.

Zhou:2005:DDM

[ZW05] Shuzi Zhou and Dehua Wang. Domain decomposition method for a parabolic variational inequality. *Applied Mathematics and Computation*, 166(1): 213–223, July 6, 2005. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Zeng:2007:NDD

[ZY07] Jin Ping Zeng and Yu Qi Ye. A nonoverlapping domain decomposition method based on Robin transmission conditions. *Hunan Daxue Xuebao*, 34(6):82–84, 2007. CODEN HDAXE3. ISSN 1000-2472.

Zhu:2009:EIP

[ZYD09] Liyong Zhu, Guangwei Yuan, and Qiang Du. An explicit-implicit predictor-corrector domain decomposition method for time dependent multi-dimensional convection diffusion equations. *Numer. Math. Theory Methods Appl.*, 2(3): 301–325, 2009. ISSN 1004-8979 (print), 2079-7338 (electronic).

Zhu:2010:EEI

[ZYD10] Liyong Zhu, Guangwei Yuan, and Qiang Du. An efficient explicit/implicit domain decomposition method for convection-diffusion equations. *Numerical Methods for Partial Differential Equations*, 26(4):852–873, 2010. CODEN NMPDEB. ISSN 0749-159X.

Zhu:2002:BEM

[ZZ02] Jialin Zhu and Taiping Zhang. Boundary element method with non-overlapping domain decomposition for diffusion equation. *J. Chongqing Univ. (Engl. Ed.)*, 1(1):47–52, 2002. ISSN 1671-8224.

Zhang:2008:DDM

[ZZYY08] Kai Zhang, Ran Zhang, Yunguang Yin, and Shi Yu. Domain decomposition methods

for linear and semilinear elliptic stochastic partial differential equations. *Applied Mathematics and Computation*, 195 (2):630–640, February 1, 2008. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Zhou:2002:CRS

[zZZhS02] Shu zi Zhou, Jinping Zeng, and Gui hua Shan. On the convergence rate of a space decomposition method. *Acta Math. Appl. Sin. Engl. Ser.*, 18 (3):455–460, 2002. ISSN 0168-9673.