Frederic Nataf

List of Publications by Year
in descending order

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29	842	759233 12	610901 24
papers	citations	h-index	g-index

30	30	30	387
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optimized Schwarz Methods without Overlap for the Helmholtz Equation. SIAM Journal of Scientific Computing, 2002, 24, 38-60.	2.8	275
2	Optimal Schwarz Waveform Relaxation for the One Dimensional Wave Equation. SIAM Journal on Numerical Analysis, 2003, 41, 1643-1681.	2.3	130
3	Analysis of a Two-level Schwarz Method with Coarse Spaces Based on Local Dirichlet-to-Neumann Maps. Computational Methods in Applied Mathematics, 2012, 12, 391-414.	0.8	72
4	A domain decomposition preconditioner for an advectionâ€“diffusion problem. Computer Methods in Applied Mechanics and Engineering, 2000, 184, 145-170.	6.6	57
5	A Coarse Space Construction Based on Local Dirichlet-to-Neumann Maps. SIAM Journal of Scientific Computing, 2011, 33, 1623-1642.	2.8	53
6	A new approach to perfectly matched layers for the linearized Euler system. Journal of Computational Physics, 2006, 214, 757-772.	3.8	43
7	A robust two-level domain decomposition preconditioner for systems of PDEs. Comptes Rendus Mathematique, 2011, 349, 1255-1259.	0.3	31
8	A coarse space for heterogeneous Helmholtz problems based on the Dirichlet-to-Neumann operator. Journal of Computational and Applied Mathematics, 2014, 271, 83-99.	2.0	28
9	A Robin-Robin preconditioner for an advection-diffusion problem. Comptes Rendus Mathematique, 1997, 325, 1211-1216.	0.5	19
10	Algebraic Domain Decomposition Methods for Highly Heterogeneous Problems. SIAM Journal of Scientific Computing, 2013, 35, C284-C302.	2.8	17
11	A Robinâ€“Robin preconditioner for advectionâ€“diffusion equations with discontinuous coefficients. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 745-764.	6.6	13
12	Convergence analysis of additive Schwarz for the Euler equations. Applied Numerical Mathematics, 2004, 49, 153-186.	2.1	12
13	Interface connections in domain decomposition methods. , 2002, , 323-364.		11
14	Perfectly matched layers for the heat and advectionâ€“diffusion equations. Journal of Computational Physics, 2010, 229, 9042-9052.	3.8	11
15	A robust coarse space for optimized Schwarz methods: SORAS-GenEO-2. Comptes Rendus Mathematique, 2015, 353, 959-963.	0.3	11
16	Recent Developments on Optimized Schwarz Methods. , 2007, , 115-125.		9
17	A new domain decomposition method for the compressible Euler equations. ESAIM: Mathematical Modelling and Numerical Analysis, 2006, 40, 689-703.	1.9	8
18	Scalable Domain Decomposition Preconditioners for Heterogeneous Elliptic Problems. Scientific Programming, 2014, 22, 157-171.	0.7	7

#	Article	IF	Citations
19	New constructions of domain decomposition methods for systems of PDEs. Comptes Rendus Mathematique, 2005, 340, 693-696.	0.3	6
20	New constructions of perfectly matched layers for the linearized Euler equations. Comptes Rendus Mathematique, 2005, 340, 775-778.	0.3	6
21	Two-Level Domain Decomposition Methods for Highly Heterogeneous Darcy Equations. Connections with Multiscale Methods. Oil and Gas Science and Technology, 2014, 69, 731-752.	1.4	6
22	A NEW INTERFACE CEMENT EQUILIBRATED MORTAR (NICEM) METHOD WITH ROBIN INTERFACE CONDITIONS: THE P₁ FINITE ELEMENT CASE. Mathematical Models and Methods in Applied Sciences, 2013, 23, 2253-2292.	3.3	5
23	Two-level algebraic domain decomposition preconditioners using Jacobiâ€“Schwarz smoother and adaptive coarse grid corrections. Journal of Computational and Applied Mathematics, 2014, 261, 1-13.	2.0	4
24	Analysis of the SORAS Domain Decomposition Preconditioner for Non-self-adjoint or Indefinite Problems. Journal of Scientific Computing, 2021, 89, 1.	2.3	4
25	Perfectly matched layers for the heat and advectionâ€“diffusion equations. Comptes Rendus Mathematique, 2010, 348, 781-785.	0.3	1
26	Overlapping for preconditioners based on incomplete factorizations and nested arrow form. Numerical Linear Algebra With Applications, 2015, 22, 48-75.	1.6	1
27	A New Domain Decomposition Method for the Compressible Euler Equations Using Smith Factorization. Lecture Notes in Computational Science and Engineering, 2008, , 331-338.	0.3	0
28	A Domain Decomposition Preconditioner of Neumann-Neumann Type for the Stokes Equations. Lecture Notes in Computational Science and Engineering, 2009, , 161-168.	0.3	0
29	An Adaptive Coarse Space for P.L. Lions Algorithm and Optimized Schwarz Methods. Lecture Notes in Computational Science and Engineering, 2017, , 43-53.	0.3	0