

David Horájk

List of Publications by Year in descending order

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44
papers

455
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840776

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all docs

47
docs citations

47
times ranked

207
citing authors

#	ARTICLE	IF	CITATIONS
1	Total FETI-an easier implementable variant of the FETI method for numerical solution of elliptic PDE. Communications in Numerical Methods in Engineering, 2006, 22, 1155-1162.	1.3	123
2	FETI based algorithms for contact problems: scalability, large displacements and 3D Coulomb friction. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 395-409.	6.6	44
3	Scalability and FETI based algorithm for large discretized variational inequalities. Mathematics and Computers in Simulation, 2003, 61, 347-357.	4.4	36
4	Scalable FETI with optimal dual penalty for a variational inequality. Numerical Linear Algebra With Applications, 2004, 11, 455-472.	1.6	35
5	Theoretically Supported Scalable FETI for Numerical Solution of Variational Inequalities. SIAM Journal on Numerical Analysis, 2007, 45, 500-513.	2.3	33
6	The READEX formalism for automatic tuning for energy efficiency. Computing (Vienna/New York), 2017, 99, 727-745.	4.8	23
7	A scalable FETI-DP algorithm for a coercive variational inequality. Applied Numerical Mathematics, 2005, 54, 378-390.	2.1	21
8	A scalable FETI-DP algorithm for a semi-coercive variational inequality. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 1369-1379.	6.6	16
9	Use of Direct Solvers in TFETI Massively Parallel Implementation. Lecture Notes in Computer Science, 2013, , 192-205.	1.3	13
10	A scalable FETI-DP algorithm with non-penetration mortar conditions on contact interface. Journal of Computational and Applied Mathematics, 2009, 231, 577-591.	2.0	12
11	Total-FETI domain decomposition method for solution of elasto-plastic problems. Advances in Engineering Software, 2015, 84, 48-54.	3.8	11
12	On R-linear convergence of semi-monotonic inexact augmented Lagrangians for bound and equality constrained quadratic programming problems with application. Computers and Mathematics With Applications, 2014, 67, 515-526.	2.7	8
13	Analyzing l1-loss and l2-loss Support Vector Machines Implemented in PERMON Toolbox. Lecture Notes in Electrical Engineering, 2020, , 13-23.	0.4	8
14	Scalable FETI Algorithms for Frictionless Contact Problems. Lecture Notes in Computational Science and Engineering, 2008, , 263-270.	0.3	8
15	Bounds on the spectra of Schur complements of large FETI-DP clusters for 2D Laplacian. Numerical Linear Algebra With Applications, 2021, 28, e2344.	1.6	5
16	On Scalable Algorithms for Numerical Solution of Variational Inequalities Based on FETI and Semi-monotonic Augmented Lagrangians. , 2005, , 487-494.		4
17	Implementation of the efficient communication layer for the highly parallel total FETI and hybrid total FETI solvers. Parallel Computing, 2016, 57, 154-166.	2.1	4
18	Steps to increase practical applicability of PragTic software. Advances in Engineering Software, 2019, 129, 57-68.	3.8	3

#	ARTICLE	IF	CITATIONS
19	Comparison of active-set and gradient projection-based algorithms for box-constrained quadratic programming. <i>Soft Computing</i> , 2020, 24, 17761-17770.	3.6	3
20	Parallel Implementation of Total-FETI DDM with Application to Medical Image Registration. <i>Lecture Notes in Computational Science and Engineering</i> , 2014, , 917-925.	0.3	3
21	Investigating Convergence of Linear SVM Implemented in PermonSVM Employing MPRGP Algorithm. <i>Lecture Notes in Computer Science</i> , 2018, , 115-129.	1.3	3
22	Highly scalable hybrid domain decomposition method for the solution of huge scalar variational inequalities. <i>Numerical Algorithms</i> , 0, , 1.	1.9	3
23	FETI-based algorithms for modelling of fibrous composite materials with debonding. <i>Mathematics and Computers in Simulation</i> , 2007, 76, 57-64.	4.4	2
24	Energy consumption optimization of the Total-FETI solver and BLAS routines by changing the CPU frequency. , 2016, , .		2
25	Efficient lifetime estimation techniques for general multiaxial loading. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	2
26	Notes on the preliminary results of a linear two-class classifier in the PERMON toolbox. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	2
27	DESCRIPTION OF SEISMIC EVENTS USING WAVELET TRANSFORM. <i>International Journal of Wavelets, Multiresolution and Information Processing</i> , 2006, 04, 405-414.	1.3	1
28	FLLOP: A Massively Parallel Solver Combining FETI Domain Decomposition Method and Quadratic Programming. , 2014, , .		1
29	On R-linear convergence of semi-monotonic inexact augmented Lagrangians for saddle point problems. <i>Computational Optimization and Applications</i> , 2014, 58, 87-103.	1.6	1
30	Numerical libraries solving large-scale problems developed at IT4Innovations Research Programme Supercomputing for Industry. <i>Perspectives in Science</i> , 2016, 7, 140-150.	0.6	1
31	Total FETI – an easier implementable variant of the FETI method for numerical solution of elliptic PDE. , 2006, 22, 1155.		1
32	Advanced Approach of Material Region Detections on Fibre-Reinforced Concrete CT-Scans. <i>Advances in Electrical and Electronic Engineering</i> , 2017, 15, .	0.3	1
33	A Note on Massively Parallel Implementation of FETI for the Solution of Contact Problems. <i>Advances in Electrical and Electronic Engineering</i> , 2017, 15, .	0.3	1
34	PERMON software toolbox as solver of contact problems in mechanics. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	0
35	The energy consumption optimization of the BLAS routines. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	0
36	Energy consumption optimization of the total-FETI solver by changing the CPU frequency. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	0

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37	The impact of enabling multiple subdomains per MPI process in the TFETI domain decomposition method. Applied Mathematics and Computation, 2018, 319, 586-597.	2.2	0
38	The fatigue damage software parallelization. AIP Conference Proceedings, 2018, , .	0.4	0
39	Non-Monotone Projected Gradient Method in Linear Elasticity Contact Problems with Given Friction. Sustainability, 2020, 12, 8674.	3.2	0
40	Comparison of selected FETI coarse space projector implementation strategies. Parallel Computing, 2020, 93, 102608.	2.1	0
41	Finding Geometry of Two Micrometers Using Affine Transformation. , 2021, , .		0
42	On the Efficient Reconstruction of Displacements in FETI Methods for Contact Problems. Advances in Electrical and Electronic Engineering, 2017, 15, .	0.3	0
43	Quadratic Programming and Scalable Algorithms for Variational Inequalities. , 2006, , 62-78.		0
44	An Overview of Scalable FETI- ϵ -DP Algorithms for Variational Inequalities. , 2007, , 223-230.		0