Tomas Kozubek

List of Publications by Year
in descending order

34 papers	277 citations	1040056 9 h-index	940533 16 g-index
40 all docs	40 docs citations	40 times ranked	225 citing authors

#	Article	IF	Citations
1	A fictitious domain approach to the numerical solution of PDEs in stochastic domains. Numerische Mathematik, 2007, 107, 257-293.	1.9	72
2	Cholesky decomposition of a positive semidefinite matrix with known kernel. Applied Mathematics and Computation, 2011, 217, 6067-6077.	2.2	25
3	An optimal algorithm and superrelaxation for minimization of a quadratic function subject to separable convex constraints with applications. Mathematical Programming, 2012, 135, 195-220.	2.4	22
4	Mathematical modeling of bituminous coal seams burning contemporaneously with the formation of a variegated beds body. International Journal of Coal Geology, 2004, 59, 137-151.	5.0	21
5	Implementation of K-means segmentation algorithm on Intel Xeon Phi and GPU: Application in medical imaging. Advances in Engineering Software, 2017, 103, 21-28.	3.8	21
6	Scalable TFETI with optional preconditioning by conjugate projector for transient frictionless contact problems of elasticity. Computer Methods in Applied Mechanics and Engineering, 2012, 247-248, 37-50.	6.6	17
7	Massively Parallel Hybrid Total FETI (HTFETI) Solver. , 2016, , .		16
8	On the solution of convex QPQC problems with elliptic and other separable constraints with strong curvature. Applied Mathematics and Computation, 2014, 247, 848-864.	2.2	14
9	Intel Xeon Phi acceleration of Hybrid Total FETI solver. Advances in Engineering Software, 2017, 112, 124-135.	3.8	11
10	A massively parallel and memory-efficient FEM toolbox with a hybrid total FETI solver with accelerator support. International Journal of High Performance Computing Applications, 2019, 33, 660-677.	3.7	10
11	Parallel solution of contact shape optimization problems based on Total FETI domain decomposition method. Structural and Multidisciplinary Optimization, 2010, 42, 955-964.	3.5	9
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	A Description of a Highly Modular System for the Emergent Flood Prediction. , 2008, , .		5
14	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
15	On Conditioning of Constraints Arising from Variationally Consistent Discretization of Contact Problems and Duality Based Solvers. Computational Methods in Applied Mathematics, 2015, 15, 221-231.	0.8	3
16	Acceleration of Blender Cycles Path-Tracing Engine Using Intel Many Integrated Core Architecture. Lecture Notes in Computer Science, 2015, , 86-97.	1.3	3
17	The HTFETI Method Variant Gluing Cluster Subdomains by Kernel Matrices Representing the Rigid Body Motions. Lecture Notes in Computational Science and Engineering, 2018, , 543-551.	0.3	3
18	Engineering Multibody Contact Problems Solved by Scalable TBETI. Lecture Notes in Applied and Computational Mechanics, 2012, , 241-269.	2.2	2

#	Article	IF	Citations
19	Contact Problems with Friction. Advances in Mechanics and Mathematics, 2016, , 211-229.	0.7	2
20	The stokes flow with friction. AIP Conference Proceedings, 2015, , .	0.4	1
21	Parallel Implementation of Collaborative Filtering Technique for Denoising of CT Images. Lecture Notes in Computer Science, 2016, , 126-140.	1.3	1
22	FETI based domain decomposition methods for large-scale topology optimization. AIP Conference Proceedings, 2020, , .	0.4	1
23	Efficient Solvers for Linear Elasticity Problems Based on the Discrete Fourier Transform and TFETI Decomposition. , 2011, , .		0
24	The Use of the Fourier Transform for Solving Linear Elasticity Problems. , 2011, , .		0
25	Preface of the â€œSymposium on high performance computing in engineering and environmental sciencesâ€. AIP Conference Proceedings, 2015, , .	0.4	0
26	Performance evaluation of OpenFOAM on many-core architectures. AIP Conference Proceedings, 2015, , .	0.4	0
27	Implementation of hybrid total FETI (HTFETI) solver for multi-core architectures. AIP Conference Proceedings, 2015, , .	0.4	0
28	An Efficient TFETI Based Solver for Elasto-Plastic Problems of Mechanics. Advances in Electrical and Electronic Engineering, 2012, 10, .	0.3	0
29	Scalable TFETI Algorithm for Frictionless Contact Problems: Theory and Real World Problems. Lecture Notes in Applied and Computational Mechanics, 2013, , 113-130.	2.2	0
30	Projected Krylov Methods for Solving Non-Symmetric Two-by-Two Block Linear Systems Arising from Fictitious Domain Formulations. Advances in Electrical and Electronic Engineering, 2014, 12, .	0.3	0
31	Solvers for Separable and Equality QP/QCQP Problems. Advances in Mechanics and Mathematics, 2016, , 135-160.	0.7	0
32	TBETI. Advances in Mechanics and Mathematics, 2016, , 251-275.	0.7	0
33	Mortars. Advances in Mechanics and Mathematics, 2016, , 277-289.	0.7	0
34	Using ESPRESO as Linear Solver Library for Third Party FEM Tools for Solving Large Scale Problems. Lecture Notes in Computer Science, 2018, , 130-143.	1.3	0