

Sergej Rjasanow

List of Publications by Year in descending order

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35
papers

1,075
citations

687363

13
h-index

454955

30
g-index

35
all docs

35
docs citations

35
times ranked

613
citing authors

#	ARTICLE	IF	CITATIONS
1	Vlasov–Poisson System Tackled by Particle Simulation Utilizing Boundary Element Methods. SIAM Journal of Scientific Computing, 2020, 42, B299-B326.	2.8	3
2	ACA Improvement by Surface Segmentation. Lecture Notes in Computational Science and Engineering, 2019, , 277-295.	0.3	0
3	Fast Boundary Element Methods for Composite Materials. Mathematical Engineering, 2019, , 97-141.	0.2	0
4	Galerkin–Petrov approach for the Boltzmann equation. Journal of Computational Physics, 2018, 366, 341-365.	3.8	30
5	Matrix-valued radial basis functions for the Lamé system. Mathematical Methods in the Applied Sciences, 2018, 41, 6080-6107.	2.3	1
6	Matrix valued adaptive cross approximation. Mathematical Methods in the Applied Sciences, 2017, 40, 2522-2531.	2.3	9
7	ACA accelerated high order BEM for Maxwell problems. Computational Mechanics, 2013, 51, 431-441.	4.0	12
8	Numerics of boundary-domain integral and integro-differential equations for BVP with variable coefficient in 3D. Computational Mechanics, 2013, 51, 495-503.	4.0	14
9	An equi-directional generalization of adaptive cross approximation for higher-order tensors. Applied Numerical Mathematics, 2013, 74, 1-16.	2.1	6
10	Boundary Element Method for Linear Elasticity with Conservative Body Forces. Lecture Notes in Applied and Computational Mechanics, 2013, , 275-297.	2.2	5
11	Numerical studies of a granular gas in a host medium. Journal of Computational Physics, 2012, 231, 1339-1359.	3.8	0
12	Boundary element method for calculation of effective elastic moduli in 3D linear elasticity. Mathematical Methods in the Applied Sciences, 2010, 33, 1021-1034.	2.3	5
13	Adaptive cross-approximation for surface reconstruction using radial basis functions. Journal of Engineering Mathematics, 2008, 62, 149-160.	1.2	13
14	Electrostatic potentials of proteins in water: a structured continuum approach. Bioinformatics, 2007, 23, e99-e103.	4.1	41
15	Hierarchical Cholesky decomposition of sparse matrices arising from curl–curl-equation. Journal of Numerical Mathematics, 2007, 15, .	3.5	10
16	Time Splitting Error in DSMC Schemes for the Spatially Homogeneous Inelastic Boltzmann Equation. SIAM Journal on Numerical Analysis, 2007, 45, 54-67.	2.3	5
17	A Weak Formulation of the Boltzmann Equation Based on the Fourier Transform. Journal of Statistical Physics, 2007, 129, 483-492.	1.2	9
18	Fast Boundary Element Methods in Computational Electromagnetism. , 2007, , 249-279.		7

#	ARTICLE	IF	CITATIONS
19	On Estimates of the Boltzmann Collision Operator with Cut-off. <i>Journal of Mathematical Fluid Mechanics</i> , 2006, 8, 242-266.	1.0	5
20	Direct simulation of the uniformly heated granular boltzmann equation. <i>Mathematical and Computer Modelling</i> , 2005, 42, 683-700.	2.0	19
21	Mapping Properties of the Boltzmann Collision Operator. <i>Integral Equations and Operator Theory</i> , 2005, 52, 61-84.	0.8	3
22	Two efficient methods for a multifrequency solution of the Helmholtz equation. <i>Computing and Visualization in Science</i> , 2005, 8, 159-167.	1.2	12
23	Monte-Carlo methods for the Boltzmann equation. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2004, , 81-115.	0.6	2
24	A Compression Method for the Helmholtz Equation. , 2004, , 786-795.		1
25	Adaptive Low-Rank Approximation of Collocation Matrices. <i>Computing (Vienna/New York)</i> , 2003, 70, 1-24.	4.8	410
26	Multifrequency analysis for the Helmholtz equation. <i>Computational Mechanics</i> , 2003, 32, 234-239.	4.0	5
27	The adaptive cross-approximation technique for the 3D boundary-element method. <i>IEEE Transactions on Magnetics</i> , 2002, 38, 421-424.	2.1	195
28	Numerical solution of the Boltzmann equation on the uniform grid. <i>Computing (Vienna/New York)</i> , 2002, 69, 163-186.	4.8	34
29	Simulation of rare events by the stochastic weighted particle method for the Boltzmann equation. <i>Mathematical and Computer Modelling</i> , 2001, 33, 907-926.	2.0	13
30	Numerical solution of the Boltzmann equation using a fully conservative difference scheme based on the fast fourier transform. <i>Transport Theory and Statistical Physics</i> , 2000, 29, 289-310.	0.4	14
31	Fast deterministic method of solving the Boltzmann equation for hard spheres. <i>European Journal of Mechanics, B/Fluids</i> , 1999, 18, 869-887.	2.5	66
32	Reduction of the Number of Particles in the Stochastic Weighted Particle Method for the Boltzmann Equation. <i>Journal of Computational Physics</i> , 1998, 145, 382-405.	3.8	42
33	A generalized collision mechanism for stochastic particle schemes approximating Boltzmann-type equations. <i>Computers and Mathematics With Applications</i> , 1998, 35, 165-178.	2.7	13
34	A Stochastic Weighted Particle Method for the Boltzmann Equation. <i>Journal of Computational Physics</i> , 1996, 124, 243-253.	3.8	66
35	Numerical Study of a Stochastic Weighted Particle Method for a Model Kinetic Equation. <i>Journal of Computational Physics</i> , 1996, 128, 351-362.	3.8	5