

Robert Krasny

List of Publications by Year in descending order

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41
papers

3,161
citations

471509

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all docs

41
docs citations

41
times ranked

3488
citing authors

#	ARTICLE	IF	CITATIONS
1	Accelerating the 3D reference interaction site model theory of molecular solvation with treecode summation and cut-offs. <i>Journal of Computational Chemistry</i> , 2022, 43, 1251-1270.	3.3	4
2	Computing electrostatic binding energy with the TABI Poisson-Boltzmann solver. <i>Communications in Information and Systems</i> , 2022, 22, 247-273.	0.5	1
3	Vorticity and circulation decay in the viscous Lamb dipole. <i>Fluid Dynamics Research</i> , 2021, 53, 015514.	1.3	2
4	Treecode-accelerated Green iteration for Kohn-Sham density functional theory. <i>Journal of Computational Physics</i> , 2021, 430, 110101.	3.8	3
5	Comparison of the MSMS and NanoShaper molecular surface triangulation codes in the TABI Poisson-Boltzmann solver. <i>Journal of Computational Chemistry</i> , 2021, 42, 1552-1560.	3.3	4
6	A GPU-accelerated fast multipole method based on barycentric Lagrange interpolation and dual tree traversal. <i>Computer Physics Communications</i> , 2021, 265, 108017.	7.5	9
7	Computing Protein pKas Using the TABI Poisson-Boltzmann Solver. <i>Journal of Computational Biophysics and Chemistry</i> , 2021, 20, 175-187.	1.7	9
8	A GPU-Accelerated Barycentric Lagrange Treecode. , 2020, , .		4
9	A treecode based on barycentric Hermite interpolation for electrostatic particle interactions. <i>Computational and Mathematical Biophysics</i> , 2019, 7, 73-84.	1.1	6
10	Improvements to the APBS biomolecular solvation software suite. <i>Protein Science</i> , 2018, 27, 112-128.	7.6	1,399
11	Computation of the Starting Vortex Flow Past a Flat Plate. <i>Procedia IUTAM</i> , 2017, 20, 136-143.	1.2	8
12	A Lagrangian particle method with remeshing for tracer transport on the sphere. <i>Journal of Computational Physics</i> , 2017, 340, 639-654.	3.8	9
13	A Lagrangian particle/panel method for the barotropic vorticity equations on a rotating sphere. <i>Fluid Dynamics Research</i> , 2014, 46, 031406.	1.3	10
14	Comparison of treecodes for computing electrostatic potentials in charged particle systems with disjoint targets and sources. <i>Journal of Computational Chemistry</i> , 2013, 34, 2159-2167.	3.3	12
15	A treecode-accelerated boundary integral Poisson-Boltzmann solver for electrostatics of solvated biomolecules. <i>Journal of Computational Physics</i> , 2013, 247, 62-78.	3.8	75
16	Thermal properties of organic light-emitting diodes. <i>Organic Electronics</i> , 2012, 13, 1565-1568.	2.6	42
17	Fast Evaluation of Multiquadric RBF Sums by a Cartesian Treecode. <i>SIAM Journal of Scientific Computing</i> , 2011, 33, 2341-2355.	2.8	15
18	Azimuthal instability of a vortex ring computed by a vortex sheet panel method. <i>Fluid Dynamics Research</i> , 2009, 41, 051405.	1.3	18

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19	A Cartesian treecode for screened coulomb interactions. Journal of Computational Physics, 2009, 228, 3858-3868.	3.8	71
20	Grid-free plasma Simulation techniques. IEEE Transactions on Plasma Science, 2006, 34, 149-165.	1.3	35
21	A treecode algorithm for simulating electron dynamics in a Penningâ€™Malmberg trap. Computer Physics Communications, 2004, 164, 306-310.	7.5	18
22	Efficient Particle Simulation of a Virtual Cathode Using a Grid-Free Treecode Poisson Solver. IEEE Transactions on Plasma Science, 2004, 32, 384-389.	1.3	23
23	A treecode algorithm for computing Ewald summation of dipolar systems. , 2003, , .		2
24	Comparison of regularizations of vortex sheet motion. , 2003, , 1062-1065.		5
25	Fourth-order finite difference simulation of a differentially heated cavity. International Journal for Numerical Methods in Fluids, 2002, 40, 1031-1037.	1.6	9
26	The onset of chaos in vortex sheet flow. Journal of Fluid Mechanics, 2002, 454, 47-69.	3.4	40
27	Treecode Algorithms for Computing Nonbonded Particle Interactions. Lecture Notes in Computational Science and Engineering, 2002, , 359-380.	0.3	2
28	Simulation of vortex sheet roll-up: chaos, azimuthal waves, ring merger. , 2002, , 3-12.		0
29	An adaptive treecode for computing nonbonded potential energy in classical molecular systems. Journal of Computational Chemistry, 2001, 22, 184-195.	3.3	53
30	A Particle Method and Adaptive Treecode for Vortex Sheet Motion in Three-Dimensional Flow. Journal of Computational Physics, 2001, 172, 879-907.	3.8	129
31	An adaptive treecode for computing nonbonded potential energy in classical molecular systems. , 2001, 22, 184.		2
32	An Ewald summation based multipole method. Journal of Chemical Physics, 2000, 113, 3492-3495.	3.0	61
33	A numerical study of vortex ring formation at the edge of a circular tube. Journal of Fluid Mechanics, 1994, 276, 139-161.	3.4	156
34	Viscous Simulation of Wake Patterns. , 1993, , 145-151.		1
35	Convergence of a Point Vortex Method for Vortex Sheets. SIAM Journal on Numerical Analysis, 1991, 28, 308-320.	2.3	18
36	A vortexâ€™dipole sheet model for a wake. Physics of Fluids A, Fluid Dynamics, 1989, 1, 173-175.	1.6	6

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37	Numerical simulation of vortex sheet evolution. Fluid Dynamics Research, 1988, 3, 93-97.	1.3	10
38	Computation of vortex sheet roll-up. Lecture Notes in Mathematics, 1988, , 9-22.	0.2	11
39	Computation of vortex sheet roll-up in the Trefftz plane. Journal of Fluid Mechanics, 1987, 184, 123-155.	3.4	183
40	A study of singularity formation in a vortex sheet by the point-vortex approximation. Journal of Fluid Mechanics, 1986, 167, 65.	3.4	352
41	Desingularization of periodic vortex sheet roll-up. Journal of Computational Physics, 1986, 65, 292-313.	3.8	344