

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Convergence of the Lloyd Algorithm for Computing Centroidal Voronoi Tessellations. SIAM Journal on Numerical Analysis, 2006, 44, 102-119.	2.3	224
2	Constrained Centroidal Voronoi Tessellations for Surfaces. SIAM Journal of Scientific Computing, 2003, 24, 1488-1506.	2.8	193
3	Maximum Principle Preserving Exponential Time Differencing Schemes for the Nonlocal AllenCahn Equation. SIAM Journal on Numerical Analysis, 2019, 57, 875-898.	2.3	141
4	Probabilistic methods for centroidal Voronoi tessellations and their parallel implementations. Parallel Computing, 2002, 28, 1477-1500.	2.1	135
5	Efficient linear schemes with unconditional energy stability for the phase field elastic bending energy model. Computer Methods in Applied Mechanics and Engineering, 2017, 315, 691-712.	6.6	133
6	A multiresolution method for climate system modeling: application of spherical centroidal Voronoi tessellations. Ocean Dynamics, 2008, 58, 475-498.	2.2	121
7	P-MVSNet: Learning Patch-Wise Matching Confidence Aggregation for Multi-View Stereo. , 2019, , .		119
8	Maximum Bound Principles for a Class of Semilinear Parabolic Equations and Exponential Time-Differencing Schemes. SIAM Review, 2021, 63, 317-359.	9.5	107
9	Linear and unconditionally energy stable schemes for the binary fluid–surfactant phase field model. Computer Methods in Applied Mechanics and Engineering, 2017, 318, 1005-1029.	6.6	101
10	Exploring a Multiresolution Modeling Approach within the Shallow-Water Equations. Monthly Weather Review, 2011, 139, 3348-3368.	1.4	86
11	Advances in Studies and Applications of Centroidal Voronoi Tessellations. Numerical Mathematics, 2010, 3, 119-142.	1.3	80
12	An Edge-Weighted Centroidal Voronoi Tessellation Model for Image Segmentation. IEEE Transactions on Image Processing, 2009, 18, 1844-1858.	9.8	76
13	Fast Explicit Integration Factor Methods for Semilinear Parabolic Equations. Journal of Scientific Computing, 2015, 62, 431-455.	2.3	74
14	Semantic Stereo Matching With Pyramid Cost Volumes. , 2019, , .		74
15	Stabilized linear semi-implicit schemes for the nonlocal Cahn–Hilliard equation. Journal of Computational Physics, 2018, 363, 39-54.	3.8	73
16	Energy stability and error estimates of exponential time differencing schemes for the epitaxial growth model without slope selection. Mathematics of Computation, 2018, 87, 1859-1885.	2.1	72
17	Voronoi-based finite volume methods, optimal Voronoi meshes, and PDEs on the sphere. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 3933-3957.	6.6	63
18	Centroidal Voronoi Tessellation Algorithms for Image Compression, Segmentation, and Multichannel Restoration. Journal of Mathematical Imaging and Vision, 2006, 24, 177-194.	1.3	61

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19	A Stable Multistep Scheme for Solving Backward Stochastic Differential Equations. SIAM Journal on Numerical Analysis, 2010, 48, 1369-1394.	2.3	57
20	A posteriori error analysis of finite element method for linear nonlocal diffusion and peridynamic models. Mathematics of Computation, 2013, 82, 1889-1922.	2.1	56
21	Attention-Aware Multi-View Stereo. , 2020, , .		55
22	Fast and accurate algorithms for simulating coarsening dynamics of Cahn–Hilliard equations. Computational Materials Science, 2015, 108, 272-282.	3.0	53
23	Efficient and stable exponential time differencing Runge–Kutta methods for phase field elastic bending energy models. Journal of Computational Physics, 2016, 316, 21-38.	3.8	53
24	Finite element approximation of the Cahn–Hilliard equation on surfaces. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 2458-2470.	6.6	47
25	Meshfree, probabilistic determination of point sets and support regions for meshless computing. Computer Methods in Applied Mechanics and Engineering, 2002, 191, 1349-1366.	6.6	45
26	Voronoi Tessellations and Their Application to Climate and Global Modeling. Lecture Notes in Computational Science and Engineering, 2011, , 313-342.	0.3	45
27	Fast High-Order Compact Exponential Time Differencing Runge–Kutta Methods for Second-Order Semilinear Parabolic Equations. Journal of Scientific Computing, 2016, 67, 1043-1065.	2.3	44
28	Quantitative evaluation of three cortical surface flattening methods. NeuroImage, 2005, 28, 869-880.	4.2	37
29	Adaptive Finite Element Methods for Elliptic PDEs Based on Conforming Centroidal Voronoi–Delaunay Triangulations. SIAM Journal of Scientific Computing, 2006, 28, 2023-2053.	2.8	37
30	Maximum bound principle preserving integrating factor Runge–Kutta methods for semilinear parabolic equations. Journal of Computational Physics, 2021, 439, 110405.	3.8	37
31	Stabilized Integrating Factor RungeKutta Method and Unconditional Preservation of Maximum Bound Principle. SIAM Journal of Scientific Computing, 2021, 43, A1780-A1802.	2.8	36
32	A conservative nonlocal convection–diffusion model and asymptotically compatible finite difference discretization. Computer Methods in Applied Mechanics and Engineering, 2017, 320, 46-67.	6.6	35
33	Unconditionally Energy Stable Linear Schemes for the Diffuse Interface Model with Peng–Robinson Equation of State. Journal of Scientific Computing, 2018, 75, 993-1015.	2.3	34
34	Numerical simulations of the quantized vortices on a thin superconducting hollow sphere. Journal of Computational Physics, 2004, 201, 511-530.	3.8	33
35	A parallel highâ€order accurate finite element nonlinear Stokes ice sheet model and benchmark experiments. Journal of Geophysical Research, 2012, 117,	3.3	33
36	Nonlocal convection–diffusion problems and finite element approximations. Computer Methods in Applied Mechanics and Engineering, 2015, 289, 60-78.	6.6	33

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37	Constrained CVT meshes and a comparison of triangular mesh generators. Computational Geometry: Theory and Applications, 2009, 42, 1-19.	0.5	30
38	Extreme-Scale Phase Field Simulations of Coarsening Dynamics on the Sunway TaihuLight Supercomputer. , 2016, , .		29
39	Finite Volume Methods on Spheres and Spherical Centroidal Voronoi Meshes. SIAM Journal on Numerical Analysis, 2005, 43, 1673-1692.	2.3	28
40	Nondegeneracy and Weak Global Convergence of the Lloyd Algorithm in \$mathbb{R}^d\$. SIAM Journal on Numerical Analysis, 2008, 46, 1423-1441.	2.3	28
41	A Numerical Method and its Error Estimates for the Decoupled Forward-Backward Stochastic Differential Equations. Communications in Computational Physics, 2014, 15, 618-646.	1.7	28
42	Approximations of a Ginzburg-Landau model for superconducting hollow spheres based on spherical centroidal Voronoi tessellations. Mathematics of Computation, 2004, 74, 1257-1281.	2.1	26
43	A comparison of neural network architectures for data-driven reduced-order modeling. Computer Methods in Applied Mechanics and Engineering, 2022, 393, 114764.	6.6	25
44	Multiscale Superpixels and Supervoxels Based on Hierarchical Edge-Weighted Centroidal Voronoi Tessellation. IEEE Transactions on Image Processing, 2015, 24, 3834-3845.	9.8	23
45	A finite volume method on general surfaces and its error estimates. Journal of Mathematical Analysis and Applications, 2009, 352, 645-668.	1.0	20
46	An exponential time-integrator scheme for steady and unsteady inviscid flows. Journal of Computational Physics, 2018, 365, 206-225.	3.8	20
47	Image Segmentation Using Local Variation and Edge-Weighted Centroidal Voronoi Tessellations. IEEE Transactions on Image Processing, 2011, 20, 3242-3256.	9.8	19
48	Adaptive anisotropic meshing for steady convection-dominated problems. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 2964-2981.	6.6	18
49	Conservative explicit local time-stepping schemes for the shallow water equations. Journal of Computational Physics, 2019, 382, 152-176.	3.8	17
50	An efficient second-order linear scheme for the phase field model of corrosive dissolution. Journal of Computational and Applied Mathematics, 2020, 367, 112472.	2.0	17
51	Stabilized Exponential-SAV Schemes Preserving Energy Dissipation Law and Maximum Bound Principle for The Allen–Cahn Type Equations. Journal of Scientific Computing, 2022, 92, .	2.3	17
52	Mesh-Guided Multi-View Stereo With Pyramid Architecture. , 2020, , .		16
53	A discontinuous Galerkin method for one-dimensional time-dependent nonlocal diffusion problems. Mathematics of Computation, 2018, 88, 123-147.	2.1	15
54	A Multichannel Edge-Weighted Centroidal Voronoi Tessellation algorithm for 3D super-alloy image segmentation. , 2011, , .		14

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55	Spatial Correspondence With Generative Adversarial Network: Learning Depth From Monocular Videos. , 2019, , .		14
56	Unconditionally Maximum Bound Principle Preserving Linear Schemes for the Conservative Allen–Cahn Equation with Nonlocal Constraint. Journal of Scientific Computing, 2021, 87, 1.	2.3	14
57	A One-Stage Domain Adaptation Network With Image Alignment for Unsupervised Nighttime Semantic Segmentation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2023, 45, 58-72.	13.9	14
58	A Multistep Scheme for Decoupled Forward-Backward Stochastic Differential Equations. Numerical Mathematics, 2016, 9, 262-288.	1.3	12
59	Nodal-type collocation methods for hypersingular integral equations and nonlocal diffusion problems. Computer Methods in Applied Mechanics and Engineering, 2016, 299, 401-420.	6.6	12
60	A fast algorithm for solving the space–time fractional diffusion equation. Computers and Mathematics With Applications, 2018, 75, 1929-1941.	2.7	12
61	Analysis of Fully Discrete Approximations for Dissipative Systems and Application to Time-Dependent Nonlocal Diffusion Problems. Journal of Scientific Computing, 2019, 78, 1438-1466.	2.3	12
62	A space-time adaptive finite element method with exponential time integrator for the phase field model of pitting corrosion. Journal of Computational Physics, 2020, 406, 109191.	3.8	12
63	Thermomechanically coupled modelling for land-terminating glaciers: a comparison of two-dimensional, first-order and three-dimensional, full-Stokes approaches. Journal of Glaciology, 2015, 61, 702-712.	2.2	11
64	Quadrature rules for finite element approximations of 1D nonlocal problems. Journal of Computational Physics, 2016, 310, 213-236.	3.8	11
65	Coupled Models and Parallel Simulations for Three-Dimensional Full-Stokes Ice Sheet Modeling. Numerical Mathematics, 2011, 4, 396-418.	1.3	11
66	A posteriori error estimates for finite volume approximations of elliptic equations on general surfaces. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 716-726.	6.6	10
67	A fuzzy edge-weighted centroidal Voronoi tessellation model for image segmentation. Computers and Mathematics With Applications, 2016, 71, 2272-2284.	2.7	10
68	A Stabilized Semi-Implicit Euler Gauge-Invariant Method for the Time-Dependent Ginzburg–Landau Equations. Journal of Scientific Computing, 2019, 80, 1083-1115.	2.3	10
69	An Additive Overlapping Domain Decomposition Method for the Helmholtz Equation. SIAM Journal of Scientific Computing, 2019, 41, A1252-A1277.	2.8	10
70	GW-PINN: A deep learning algorithm for solving groundwater flow equations. Advances in Water Resources, 2022, 165, 104243.	3.8	10
71	Explicit Large Time Stepping with A Second-Order Exponential Time Integrator Scheme for Unsteady and Steady Flows. , 2017, , .		8
72	A fast compact exponential time differencing method for semilinear parabolic equations with Neumann boundary conditions. Applied Mathematics Letters, 2019, 94, 257-265.	2.7	8

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73	Unconditionally stable exponential time differencing schemes for the massâ€conserving <scp>Allen–Cahn</scp> equation with nonlocal and local effects. Numerical Methods for Partial Differential Equations, 2022, 38, 1636-1657.	3.6	8
74	Compact implicit integration factor methods for a family of semilinear fourth-order parabolic equations. Discrete and Continuous Dynamical Systems - Series B, 2014, 19, 1667-1687.	0.9	8
75	3D open-surface shape correspondence for statistical shape modeling: Identifying topologically consistent landmarks. , 2009, , .		7
76	A Parallel Computational Model for Three-Dimensional, Thermo-Mechanical Stokes Flow Simulations of Glaciers and Ice Sheets. Communications in Computational Physics, 2014, 16, 1056-1080.	1.7	7
77	Fast Time Integration of Navier-Stokes Equations with an Exponential-Integrator Scheme. , 2018, , .		7
78	A variational phase field method for curve smoothing. Journal of Computational Physics, 2010, 229, 2390-2400.	3.8	6
79	Finite element three-dimensional Stokes ice sheet dynamics model with enhanced local mass conservation. Journal of Computational Physics, 2014, 274, 299-311.	3.8	6
80	Multiscale Superpixels and Supervoxels Based on Hierarchical Edge-Weighted Centroidal Voronoi Tessellation. , 2015, , .		6
81	An accurate and asymptotically compatible collocation scheme for nonlocal diffusion problems. Applied Numerical Mathematics, 2018, 133, 52-68.	2.1	6
82	Fast spherical centroidal Voronoi mesh generation: A Lloyd-preconditioned LBFGS method in parallel. Journal of Computational Physics, 2018, 367, 235-252.	3.8	6
83	A fast compact time integrator method for a family of general order semilinear evolution equations. Journal of Computational Physics, 2019, 393, 313-336.	3.8	6
84	DeepFusion: A simple way to improve traditional multi-view stereo methods using deep learning. Knowledge-Based Systems, 2021, 221, 106968.	7.1	6
85	Adaptive finite volume methods for steady convection-diffusion equations with mesh optimization. Discrete and Continuous Dynamical Systems - Series B, 2009, 11, 669-690.	0.9	6
86	A numerical method for exact boundary controllability problems for the wave equation. Computers and Mathematics With Applications, 2006, 51, 721-750.	2.7	5
87	Effects of strong anchoring on the dynamic moduli of heterogeneous nematic polymers II: oblique anchoring angles. Rheologica Acta, 2010, 49, 335-347.	2.4	4
88	Exponential Time Differencing Gauge Method for Incompressible Viscous Flows. Communications in Computational Physics, 2017, 22, 517-541.	1.7	4
89	Multi-Video Temporal Synchronization by Matching Pose Features of Shared Moving Subjects. , 2019, , .		4

90 Exponential Time-Marching method for the Unsteady Navier-Stokes Equations. , 2019, , .

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91	A Discontinuous Galerkin Method with Penalty for One-Dimensional Nonlocal Diffusion Problems. Communications on Applied Mathematics and Computation, 2020, 2, 31-55.	1.7	4
92	Overlapping domain decomposition based exponential time differencing methods for semilinear parabolic equations. BIT Numerical Mathematics, 2021, 61, 1-36.	2.0	4
93	Localized Exponential Time DifferencingMethod for Shallow Water Equations: Algorithms and Numerical Study. Communications in Computational Physics, 2021, 29, 80-110.	1.7	4
94	Grain Segmentation of 3D Superalloy Images Using Multichannel EWCVT under Human Annotation Constraints. Lecture Notes in Computer Science, 2012, , 244-257.	1.3	4
95	Linear and Unconditionally Energy Stable Schemes for the Multi-Component Two-Phase Diffuse Interface Model with Peng-Robinson Equation of State. Communications in Computational Physics, 2019, 26, 1071-1097.	1.7	4
96	Generalized edge-weighted centroidal Voronoi tessellations for geometry processing. Computers and Mathematics With Applications, 2012, 64, 2663-2681.	2.7	3
97	A comparison of two Stokes ice sheet models applied toÂtheÂMarineÂlceÂSheet Model Intercomparison ProjectÂforÂplanÂviewÂmodels (MISMIP3d). Cryosphere, 2017, 11, 179-190.	3.9	3
98	Adaptive Exponential Time Integration of the Navier-Stokes Equations. , 2020, , .		3
99	A spectral collocation method for nonlocal diffusion equations with volume constrained boundary conditions. Applied Mathematics and Computation, 2020, 370, 124930.	2.2	3
100	High order explicit local time stepping methods for hyperbolic conservation laws. Mathematics of Computation, 2020, 89, 1807-1842.	2.1	3
101	Overlapping localized exponential time differencing methods for diffusion problems. Communications in Mathematical Sciences, 2018, 16, 1531-1555.	1.0	3
102	Numerical simulations of the steady Navier–Stokes equations using adaptive meshing schemes. International Journal for Numerical Methods in Fluids, 2008, 56, 703-721.	1.6	2
103	Covolume-upwind finite volume approximations for linear elliptic partial differential equations. Journal of Computational Physics, 2012, 231, 6097-6120.	3.8	2
104	3D Superalloy Grain Segmentation Using a Multichannel Edge-Weighted Centroidal Voronoi Tessellation Algorithm. IEEE Transactions on Image Processing, 2013, 22, 4123-4135.	9.8	2
105	Edge-Weighted Centroid Voronoi Tessellation with Propagation of Consistency Constraint for 3D Grain Segmentation in Microscopic Superalloy Images. , 2014, , .		2
106	Conservative finiteâ€volume schemes for the quasiâ€geostrophic equation on coastal onforming unstructured primal–dual meshes. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 1106-1122.	2.7	2
107	Nonoverlapping Localized Exponential Time Differencing Methods for Diffusion Problems. Journal of Scientific Computing, 2020, 82, 1.	2.3	2
108	A Diagonal Sweeping Domain Decomposition Method with Source Transfer for the Helmholtz Equation. Communications in Computational Physics, 2021, 29, 357-398.	1.7	2

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109	Trace transfer-based diagonal sweeping domain decomposition method for the Helmholtz equation: Algorithms and convergence analysis. Journal of Computational Physics, 2022, 455, 110980.	3.8	2
110	Conservative numerical schemes with optimal dispersive wave relations: Part I. Derivation and analysis. Numerische Mathematik, 2021, 149, 43-85.	1.9	1
111	Parallel exponential time differencing methods for geophysical flow simulations. Computer Methods in Applied Mechanics and Engineering, 2021, 387, 114151.	6.6	1
112	Numerical investigation of ensemble methods with block iterative solvers for evolution problems. Discrete and Continuous Dynamical Systems - Series B, 2020, 25, 4905-4923.	0.9	1
113	Effects of Director Angle Anchoring Conditions on the Dynamic Moduli of Heterogeneous Nematic Polymers. AIP Conference Proceedings, 2008, , .	0.4	0
114	High-order multirate explicit time-stepping schemes for the baroclinic-barotropic split dynamics in primitive equations. Journal of Computational Physics, 2022, , 111050.	3.8	0
115	Conservative Numerical Schemes with Optimal Dispersive Wave Relations: Part II.ÂNumerical Evaluations. Journal of Scientific Computing, 2022, 92, .	2.3	0