

Lin Mu

List of Publications by Year in descending order

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66
papers

1,778
citations

361413

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289244

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66
all docs

66
docs citations

66
times ranked

609
citing authors

#	ARTICLE	IF	CITATIONS
1	Representability of algebraic topology for biomolecules in machine learning based scoring and virtual screening. PLoS Computational Biology, 2018, 14, e1005929.	3.2	168
2	A Weak Galerkin Finite Element Method for the Maxwell Equations. Journal of Scientific Computing, 2015, 65, 363-386.	2.3	146
3	Weak Galerkin finite element methods for the biharmonic equation on polytopal meshes. Numerical Methods for Partial Differential Equations, 2014, 30, 1003-1029.	3.6	131
4	Weak Galerkin methods for second order elliptic interface problems. Journal of Computational Physics, 2013, 250, 106-125.	3.8	118
5	A weak Galerkin finite element method with polynomial reduction. Journal of Computational and Applied Mathematics, 2015, 285, 45-58.	2.0	105
6	A computational study of the weak Galerkin method for second-order elliptic equations. Numerical Algorithms, 2013, 63, 753-777.	1.9	89
7	A new weak Galerkin finite element method for elliptic interface problems. Journal of Computational Physics, 2016, 325, 157-173.	3.8	89
8	A new weak Galerkin finite element method for the Helmholtz equation. IMA Journal of Numerical Analysis, 2015, 35, 1228-1255.	2.9	73
9	A stable numerical algorithm for the Brinkman equations by weak Galerkin finite element methods. Journal of Computational Physics, 2014, 273, 327-342.	3.8	67
10	A C^0 -Weak Galerkin Finite Element Method for the Biharmonic Equation. Journal of Scientific Computing, 2014, 59, 473-495.	2.3	58
11	Weak Galerkin finite element methods for Darcy flow: Anisotropy and heterogeneity. Journal of Computational Physics, 2014, 276, 422-437.	3.8	54
12	A modified weak Galerkin finite element method for the Stokes equations. Journal of Computational and Applied Mathematics, 2015, 275, 79-90.	2.0	51
13	A Numerical Study on the Weak Galerkin Method for the Helmholtz Equation. Communications in Computational Physics, 2014, 15, 1461-1479.	1.7	41
14	A New Weak Galerkin Finite Element Scheme for the Brinkman Model. Communications in Computational Physics, 2016, 19, 1409-1434.	1.7	38
15	A weak Galerkin finite element method for the Navier-Stokes equations. Journal of Computational and Applied Mathematics, 2019, 362, 614-625.	2.0	28
16	Pressure Robust Weak Galerkin Finite Element Methods for Stokes Problems. SIAM Journal of Scientific Computing, 2020, 42, B608-B629.	2.8	28
17	Weak Galerkin method for the Biot's consolidation model. Computers and Mathematics With Applications, 2018, 75, 2017-2030.	2.7	27
18	Multiscale Persistent Functions for Biomolecular Structure Characterization. Bulletin of Mathematical Biology, 2018, 80, 1-31.	1.9	24

#	ARTICLE	IF	CITATIONS
19	A Stabilizer-Free, Pressure-Robust, and Superconvergence Weak Galerkin Finite Element Method for the Stokes Equations on Polytopal Mesh. <i>SIAM Journal of Scientific Computing</i> , 2021, 43, A2614-A2637.	2.8	24
20	An adaptive discontinuous finite volume method for elliptic problems. <i>Journal of Computational and Applied Mathematics</i> , 2011, 235, 5422-5431.	2.0	21
21	A Weak Galerkin Mixed Finite Element Method for Biharmonic Equations. <i>Springer Proceedings in Mathematics and Statistics</i> , 2013, , 247-277.	0.2	19
22	Interior penalty discontinuous Galerkin method on very general polygonal and polyhedral meshes. <i>Journal of Computational and Applied Mathematics</i> , 2014, 255, 432-440.	2.0	18
23	Shape regularity conditions for polygonal/polyhedral meshes, exemplified in a discontinuous Galerkin discretization. <i>Numerical Methods for Partial Differential Equations</i> , 2015, 31, 308-325.	3.6	17
24	A pressure-robust virtual element method for the Stokes problem. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 382, 113879.	6.6	17
25	A Least-Squares-Based Weak Galerkin Finite Element Method for Second Order Elliptic Equations. <i>SIAM Journal of Scientific Computing</i> , 2017, 39, A1531-A1557.	2.8	16
26	Weak Galerkin based a posteriori error estimates for second order elliptic interface problems on polygonal meshes. <i>Journal of Computational and Applied Mathematics</i> , 2019, 361, 413-425.	2.0	16
27	Convergence of the discontinuous finite volume method for elliptic problems with minimal regularity. <i>Journal of Computational and Applied Mathematics</i> , 2012, 236, 4537-4546.	2.0	15
28	A hybridized formulation for the weak Galerkin mixed finite element method. <i>Journal of Computational and Applied Mathematics</i> , 2016, 307, 335-345.	2.0	13
29	A discrete divergence free weak Galerkin finite element method for the Stokes equations. <i>Applied Numerical Mathematics</i> , 2018, 125, 172-182.	2.1	13
30	A mesh-free method using piecewise deep neural network for elliptic interface problems. <i>Journal of Computational and Applied Mathematics</i> , 2022, 412, 114358.	2.0	13
31	A finite volume method for solving Navier-Stokes problems. <i>Nonlinear Analysis: Theory, Methods & Applications</i> , 2011, 74, 6686-6695.	1.1	12
32	Effective implementation of the weak Galerkin finite element methods for the biharmonic equation. <i>Computers and Mathematics With Applications</i> , 2017, 74, 1215-1222.	2.7	12
33	Development of a P_2 element with optimal L^2 convergence for biharmonic equation. <i>Numerical Methods for Partial Differential Equations</i> , 2019, 35, 1497-1508.	3.6	12
34	Accelerating linear solvers for Stokes problems with C++ metaprogramming. <i>Journal of Computational Science</i> , 2021, 49, 101285.	2.9	12
35	A simple finite element method for linear hyperbolic problems. <i>Journal of Computational and Applied Mathematics</i> , 2018, 330, 330-339.	2.0	11
36	A modified weak Galerkin finite element methods for convection-diffusion problems in 2D. <i>Journal of Applied Mathematics and Computing</i> , 2015, 49, 493-511.	2.5	10

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37	A simple finite element method for the Stokes equations. <i>Advances in Computational Mathematics</i> , 2017, 43, 1305-1324.	1.6	10
38	DG-IMEX Stochastic Galerkin Schemes for Linear Transport Equation with Random Inputs and Diffusive Scalings. <i>Journal of Scientific Computing</i> , 2017, 73, 566-592.	2.3	10
39	Interior energy error estimates for the weak Galerkin finite element method. <i>Numerische Mathematik</i> , 2018, 139, 447-478.	1.9	10
40	An immersed weak Galerkin method for elliptic interface problems. <i>Journal of Computational and Applied Mathematics</i> , 2019, 362, 471-483.	2.0	10
41	A Uniformly Robust H(DIV) Weak Galerkin Finite Element Methods for Brinkman Problems. <i>SIAM Journal on Numerical Analysis</i> , 2020, 58, 1422-1439.	2.3	10
42	A posteriori error analysis for discontinuous finite volume methods of elliptic interface problems. <i>Journal of Computational and Applied Mathematics</i> , 2014, 255, 529-543.	2.0	9
43	An GPU-accelerated particle tracking method for Eulerian-Lagrangian simulations using hardware ray tracing cores. <i>Computer Physics Communications</i> , 2022, 271, 108221.	7.5	9
44	A Comparative Study of Locally Conservative Numerical Methods for Darcy's Flows. <i>Procedia Computer Science</i> , 2011, 4, 974-983.	2.0	8
45	A Fully Computable A Posteriori Error Estimate for the Stokes Equations on Polytopal Meshes. <i>SIAM Journal on Numerical Analysis</i> , 2019, 57, 458-477.	2.3	8
46	A recovery-based error estimate for nonconforming finite volume methods of interface problems. <i>Applied Mathematics and Computation</i> , 2013, 220, 63-74.	2.2	7
47	A weak Galerkin generalized multiscale finite element method. <i>Journal of Computational and Applied Mathematics</i> , 2016, 305, 68-81.	2.0	7
48	An a posteriori error estimator for the weak Galerkin least-squares finite-element method. <i>Journal of Computational and Applied Mathematics</i> , 2019, 362, 383-399.	2.0	7
49	Geometric and electrostatic modeling using molecular rigidity functions. <i>Journal of Computational and Applied Mathematics</i> , 2017, 313, 18-37.	2.0	6
50	A Weak Galerkin Method for the Reissner-Mindlin Plate in Primary Form. <i>Journal of Scientific Computing</i> , 2018, 75, 782-802.	2.3	6
51	A Domain Decomposition Model Reduction Method for Linear Convection-Diffusion Equations with Random Coefficients. <i>SIAM Journal of Scientific Computing</i> , 2019, 41, A1984-A2011.	2.8	6
52	A priori and a posterior error estimate of new weak Galerkin finite element methods for second order elliptic interface problems on polygonal meshes. <i>Journal of Computational and Applied Mathematics</i> , 2019, 362, 423-442.	2.0	6
53	Development of Pressure-Robust Discontinuous Galerkin Finite Element Methods for the Stokes Problem. <i>Journal of Scientific Computing</i> , 2021, 89, 1.	2.3	6
54	A new WENO weak Galerkin finite element method for time dependent hyperbolic equations. <i>Applied Numerical Mathematics</i> , 2021, 159, 106-124.	2.1	5

#	ARTICLE	IF	CITATIONS
55	Solving the linear transport equation by a deep neural network approach. Discrete and Continuous Dynamical Systems - Series S, 2022, 15, 669. $\langle \mathbf{m}, \mathbf{m} \rangle = \ \mathbf{m}\ ^2$	1.1	5
56	A new upwind weak Galerkin finite element method for linear hyperbolic equations. Journal of Computational and Applied Mathematics, 2021, 390, 113376.	2.7	4
57	A recovery-based error estimator for finite volume methods of interface problems: Conforming linear elements. Numerical Methods for Partial Differential Equations, 2013, 29, 131-143.	3.6	3
58	Superconvergence of finite element approximations for the Stokes problem by -projection methods. Applied Mathematics and Computation, 2013, 219, 5649-5656.	2.2	3
59	Discontinuous Galerkin sparse grids methods for time domain Maxwell's equations. Computer Physics Communications, 2020, 256, 107412.	7.5	3
60	An efficient high-order numerical solver for diffusion equations with strong anisotropy. Computer Physics Communications, 2022, 276, 108333.	7.5	3
61	A posteriori error estimates of stabilized finite volume method for the Stokes equations. Mathematical Methods in the Applied Sciences, 2016, 39, 32-43.	2.3	2
62	Weak Galerkin finite element with curved edges. Journal of Computational and Applied Mathematics, 2021, 381, 113038.	2.0	2
63	Viscosity robust weak Galerkin finite element methods for Stokes problems. Electronic Research Archive, 2021, 29, 1881-1895.	0.9	2
64	Superconvergence of H(div) finite element approximations for the Stokes problem by local L2-projection methods. Journal of Computational and Applied Mathematics, 2015, 278, 278-292.	2.0	1
65	A non-intrusive domain decomposition model reduction method for linear steady-state partial differential equations with random coefficients. Numerical Methods for Partial Differential Equations, 2022, 38, 1993-2011.	3.6	0