Lin Mu

List of Publications by Year
in descending order

66 papers	**1,778** citations	361413 **20** h-index	289244 **40** g-index
66 all docs	**66** docs citations	**66** times ranked	**609** citing authors

#	Article	IF	Citations
1	Solving the linear transport equation by a deep neural network approach. Discrete and Continuous Dynamical Systems - Series S, 2022, 15, 669.	1.1	5
2	An GPU-accelerated particle tracking method for Eulerian–Lagrangian simulations using hardware ray tracing cores. Computer Physics Communications, 2022, 271, 108221.	7.5	9
3	An efficient high-order numerical solver for diffusion equations with strong anisotropy. Computer Physics Communications, 2022, 276, 108333.	7.5	3
4	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
5	A mesh-free method using piecewise deep neural network for elliptic interface problems. Journal of Computational and Applied Mathematics, 2022, 412, 114358.	2.0	13
6	Weak Galerkin finite element with curved edges. Journal of Computational and Applied Mathematics, 2021, 381, 113038.	2.0	2
7	A new WENO weak Galerkin finite element method for time dependent hyperbolic equations. Applied Numerical Mathematics, 2021, 159, 106-124.	2.1	5
8	A Stabilizer-Free, Pressure-Robust, and Superconvergence Weak Galerkin Finite Element Method for the Stokes Equations on Polytopal Mesh. SIAM Journal of Scientific Computing, 2021, 43, A2614-A2637.	2.8	24
9	Accelerating linear solvers for Stokes problems with C++ metaprogramming. Journal of Computational Science, 2021, 49, 101285.	2.9	12
10	A new upwind weak Galerkin finite element method for linear hyperbolic equations. Journal of Computational and Applied Mathematics, 2021, 390, 113376.	2.0	4
11	A pressure-robust virtual element method for the Stokes problem. Computer Methods in Applied Mechanics and Engineering, 2021, 382, 113879.	6.6	17
12	Development of Pressure-Robust Discontinuous Galerkin Finite Element Methods for the Stokes Problem. Journal of Scientific Computing, 2021, 89, 1.	2.3	6
13	Viscosity robust weak Galerkin finite element methods for Stokes problems. Electronic Research Archive, 2021, 29, 1881-1895.	0.9	2
14	Pressure Robust Weak Galerkin Finite Element Methods for Stokes Problems. SIAM Journal of Scientific Computing, 2020, 42, B608-B629.	2.8	28
15	A Uniformly Robust H(DIV) Weak Galerkin Finite Element Methods for Brinkman Problems. SIAM Journal on Numerical Analysis, 2020, 58, 1422-1439.	2.3	10
16	Discontinuous Galerkin sparse grids methods for time domain Maxwell's equations. Computer Physics Communications, 2020, 256, 107412.	7.5	3
17	An immersed weak Galerkin method for elliptic interface problems. Journal of Computational and Applied Mathematics, 2019, 362, 471-483.	2.0	10
18	Weak Galerkin based a posteriori error estimates for second order elliptic interface problems on polygonal meshes. Journal of Computational and Applied Mathematics, 2019, 361, 413-425.	2.0	16

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19	Development of a P_2 element with optimal L^2 convergence for biharmonic equation. Numerical Methods for Partial Differential Equations, 2019, 35, 1497-1508.	3.6	12
20	A Fully Computable A Posteriori Error Estimate for the Stokes Equations on Polytopal Meshes. SIAM Journal on Numerical Analysis, 2019, 57, 458-477.	2.3	8
21	A Domain Decomposition Model Reduction Method for Linear Convection-Diffusion Equations with Random Coefficients. SIAM Journal of Scientific Computing, 2019, 41, A1984-A2011.	2.8	6
22	A weak Galerkin finite element method for the Navier–Stokes equations. Journal of Computational and Applied Mathematics, 2019, 362, 614-625.	2.0	28
23	An a posteriori error estimator for the weak Galerkin least-squares finite-element method. Journal of Computational and Applied Mathematics, 2019, 362, 383-399.	2.0	7
24	A priori and a posterior error estimate of new weak Galerkin finite element methods for second order elliptic interface problems on polygonal meshes. Journal of Computational and Applied Mathematics, 2019, 362, 423-442.	2.0	6
25	Interior energy error estimates for the weak Galerkin finite element method. Numerische Mathematik, 2018, 139, 447-478.	1.9	10
26	Weak Galerkin method for the Biot's consolidation model. Computers and Mathematics With Applications, 2018, 75, 2017-2030.	2.7	27
27	A simple finite element method for linear hyperbolic problems. Journal of Computational and Applied Mathematics, 2018, 330, 330-339.	2.0	11
28	A Weak Galerkin Method for the Reissner–Mindlin Plate in Primary Form. Journal of Scientific Computing, 2018, 75, 782-802.	2.3	6
29	A discrete divergence free weak Galerkin finite element method for the Stokes equations. Applied Numerical Mathematics, 2018, 125, 172-182.	2.1	13
30	Multiscale Persistent Functions for Biomolecular Structure Characterization. Bulletin of Mathematical Biology, 2018, 80, 1-31.	1.9	24
31	Representability of algebraic topology for biomolecules in machine learning based scoring and virtual screening. PLoS Computational Biology, 2018, 14, e1005929.	3.2	168
32	A simple finite element method for the Stokes equations. Advances in Computational Mathematics, 2017, 43, 1305-1324.	1.6	10
33	A Least-Squares-Based Weak Galerkin Finite Element Method for Second Order Elliptic Equations. SIAM Journal of Scientific Computing, 2017, 39, A1531-A1557.	2.8	16
34	DG-IMEX Stochastic Galerkin Schemes for Linear Transport Equation with Random Inputs and Diffusive Scalings. Journal of Scientific Computing, 2017, 73, 566-592.	2.3	10
35	Effective implementation of the weak Galerkin finite element methods for the biharmonic equation. Computers and Mathematics With Applications, 2017, 74, 1215-1222.	2.7	12
36	Geometric and electrostatic modeling using molecular rigidity functions. Journal of Computational and Applied Mathematics, 2017, 313, 18-37.	2.0	6

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37	A weak Galerkin generalized multiscale finite element method. Journal of Computational and Applied Mathematics, 2016, 305, 68-81.	2.0	7
38	<i>A posteriori</i> error estimates of stabilized finite volume method for the Stokes equations. Mathematical Methods in the Applied Sciences, 2016, 39, 32-43.	2.3	2
39	A new weak Galerkin finite element method for elliptic interface problems. Journal of Computational Physics, 2016, 325, 157-173.	3.8	89
40	A New Weak Galerkin Finite Element Scheme for the Brinkman Model. Communications in Computational Physics, 2016, 19, 1409-1434.	1.7	38
41	A hybridized formulation for the weak Galerkin mixed finite element method. Journal of Computational and Applied Mathematics, 2016, 307, 335-345.	2.0	13
42	Shape regularity conditions for polygonal/polyhedral meshes, exemplified in a discontinuous Galerkin discretization. Numerical Methods for Partial Differential Equations, 2015, 31, 308-325.	3.6	17
43	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
44	A Weak Galerkin Finite Element Method for the Maxwell Equations. Journal of Scientific Computing, 2015, 65, 363-386.	2.3	146
45	A weak Galerkin finite element method with polynomial reduction. Journal of Computational and Applied Mathematics, 2015, 285, 45-58.	2.0	105
46	A modified weak Galerkin finite element methods for convection–diffusion problems in 2D. Journal of Applied Mathematics and Computing, 2015, 49, 493-511.	2.5	10
47	A modified weak Galerkin finite element method for the Stokes equations. Journal of Computational and Applied Mathematics, 2015, 275, 79-90.	2.0	51
48	A new weak Galerkin finite element method for the Helmholtz equation. IMA Journal of Numerical Analysis, 2015, 35, 1228-1255.	2.9	73
49	A posteriori error analysis for discontinuous finite volume methods of elliptic interface problems. Journal of Computational and Applied Mathematics, 2014, 255, 529-543.	2.0	9
50	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
51	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
52	Weak Galerkin finite element methods for Darcy flow: Anisotropy and heterogeneity. Journal of Computational Physics, 2014, 276, 422-437.	3.8	54
53	A $$C^0$$ C 0 -Weak Galerkin Finite Element Method for the Biharmonic Equation. Journal of Scientific Computing, 2014, 59, 473-495.	2.3	58
54	Interior penalty discontinuous Galerkin method on very general polygonal and polyhedral meshes. Journal of Computational and Applied Mathematics, 2014, 255, 432-440.	2.0	18

#	ARTICLE	IF	CITATIONS
55	A Numerical Study on the Weak Galerkin Method for the Helmholtz Equation. Communications in Computational Physics, 2014, 15, 1461-1479.	1.7	41
56	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
57	A computational study of the weak Galerkin method for second-order elliptic equations. Numerical Algorithms, 2013, 63, 753-777.	1.9	89
58	A recovery-based error estimate for nonconforming finite volume methods of interface problems. Applied Mathematics and Computation, 2013, 220, 63-74.	2.2	7
59	Weak Galerkin methods for second order elliptic interface problems. Journal of Computational Physics, 2013, 250, 106-125.	3.8	118
60	Superconvergence of finite element approximations for the Stokes problem by -projection methods. Applied Mathematics and Computation, 2013, 219, 5649-5656.	2.2	3
61	A Weak Galerkin Mixed Finite Element Method for Biharmonic Equations. Springer Proceedings in Mathematics and Statistics, 2013, , 247-277.	0.2	19
62	<mml:math altimg="si4.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/x	2.7	4
63	Convergence of the discontinuous finite volume method for elliptic problems with minimal regularity. Journal of Computational and Applied Mathematics, 2012, 236, 4537-4546.	2.0	15
64	An adaptive discontinuous finite volume method for elliptic problems. Journal of Computational and Applied Mathematics, 2011, 235, 5422-5431.	2.0	21
65	A finite volume method for solving Navier–Stokes problems. Nonlinear Analysis: Theory, Methods & Applications, 2011, 74, 6686-6695.	1.1	12
66	A Comparative Study of Locally Conservative Numerical Methods for Darcy's Flows. Procedia Computer Science, 2011, 4, 974-983.	2.0	8