Xiu Ye

List of Publications by Year
in descending order

106	3,689	159585	138484
papers	citations	30 h-index	58 g-index

106	106	106	719
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A weak Galerkin finite element method for second-order elliptic problems. Journal of Computational and Applied Mathematics, 2013, 241, 103-115.	2.0	426
2	A weak Galerkin mixed finite element method for second order elliptic problems. Mathematics of Computation, 2014, 83, 2101-2126.	2.1	368
3	A weak Galerkin finite element method for the stokes equations. Advances in Computational Mathematics, 2016, 42, 155-174.	1.6	164
4	Nonconforming Galerkin methods based on quadrilateral elements for second order elliptic problems. ESAIM: Mathematical Modelling and Numerical Analysis, 1999, 33, 747-770.	1.9	151
5	A Weak Galerkin Finite Element Method for the Maxwell Equations. Journal of Scientific Computing, 2015, 65, 363-386.	2.3	146
6	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
7	Weak Galerkin methods for second order elliptic interface problems. Journal of Computational Physics, 2013, 250, 106-125.	3.8	118
8	A weak Galerkin finite element method with polynomial reduction. Journal of Computational and Applied Mathematics, 2015, 285, 45-58.	2.0	105
9	Discontinuous Galerkin Finite Element Methods for Interface Problems: A Priori and A Posteriori Error Estimations. SIAM Journal on Numerical Analysis, 2011, 49, 1761-1787.	2.3	95
10	A computational study of the weak Galerkin method for second-order elliptic equations. Numerical Algorithms, 2013, 63, 753-777.	1.9	89
11	A new weak Galerkin finite element method for elliptic interface problems. Journal of Computational Physics, 2016, 325, 157-173.	3.8	89
12	A Weak Galerkin Finite Element Method for Singularly Perturbed Convection-Diffusion--Reaction Problems. SIAM Journal on Numerical Analysis, 2018, 56, 1482-1497.	2.3	83
13	A stable nonconforming quadrilateral finite element method for the stationary Stokes and Navier-Stokes equations. Calcolo, 1999, 36, 215-232.	1.1	80
14	On the relationship between finite volume and finite element methods applied to the Stokes equations. Numerical Methods for Partial Differential Equations, 2001, 17, 440-453.	3.6	76
15	New Finite Element Methods in Computational Fluid Dynamics by H(div) Elements. SIAM Journal on Numerical Analysis, 2007, 45, 1269-1286.	2.3	74
16	A new weak Galerkin finite element method for the Helmholtz equation. IMA Journal of Numerical Analysis, 2015, 35, 1228-1255.	2.9	73
17	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
18	Unified Analysis of Finite Volume Methods for Second Order Elliptic Problems. SIAM Journal on Numerical Analysis, 2007, 45, 1639-1653.	2.3	65

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19	A New Discontinuous Finite Volume Method for Elliptic Problems. SIAM Journal on Numerical Analysis, 2004, 42, 1062-1072.	2.3	58
20	A Discontinuous Finite Volume Method for the Stokes Problems. SIAM Journal on Numerical Analysis, 2006, 44, 183-198.	2.3	58
21	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
22	Weak Galerkin finite element methods for Darcy flow: Anisotropy and heterogeneity. Journal of Computational Physics, 2014, 276, 422-437.	3.8	54
23	A Posteriori Error Estimates for Weak Galerkin Finite Element Methods for Second Order Elliptic Problems. Journal of Scientific Computing, 2014, 59, 496-511.	2.3	53
24	A modified weak Galerkin finite element method for the Stokes equations. Journal of Computational and Applied Mathematics, 2015, 275, 79-90.	2.0	51
25	Superconvergence of Finite Element Approximations for the Stokes Problem by Projection Methods. SIAM Journal on Numerical Analysis, 2001, 39, 1001-1013.	2.3	42
26	A Numerical Study on the Weak Galerkin Method for the Helmholtz Equation. Communications in Computational Physics, 2014, 15, 1461-1479.	1.7	41
27	A Robust Numerical Method for Stokes Equations Based on Divergence-FreeH(div) Finite Element Methods. SIAM Journal of Scientific Computing, 2009, 31, 2784-2802.	2.8	38
28	A stabilizer-free weak Galerkin finite element method on polytopal meshes. Journal of Computational and Applied Mathematics, 2020, 371, 112699.	2.0	38
29	Superconvergence of nonconforming finite element method for the Stokes equations. Numerical Methods for Partial Differential Equations, 2002, 18, 143-154.	3.6	35
30	Unified Analysis of Finite Volume Methods for the Stokes Equations. SIAM Journal on Numerical Analysis, 2010, 48, 824-839.	2.3	32
31	A weak Galerkin finite element method for the Navierâ€“Stokes equations. Journal of Computational and Applied Mathematics, 2019, 362, 614-625.	2.0	28
32	Weak Galerkin method for the Biotâ€™s consolidation model. Computers and Mathematics With Applications, 2018, 75, 2017-2030.	2.7	27
33	A Stabilizer Free Weak Galerkin Method for the Biharmonic Equation on Polytopal Meshes. SIAM Journal on Numerical Analysis, 2020, 58, 2572-2588.	2.3	27
34	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
35	An auxiliary space multigrid preconditioner for the weak Galerkin method. Computers and Mathematics With Applications, 2015, 70, 330-344.	2.7	23
36	Superconvergence of finite volume methods for the second order elliptic problem. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 3706-3712.	6.6	22

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37	An adaptive discontinuous finite volume method for elliptic problems. Journal of Computational and Applied Mathematics, 2011, 235, 5422-5431.	2.0	21
38	A Weak Galerkin Mixed Finite Element Method for Biharmonic Equations. Springer Proceedings in Mathematics and Statistics, 2013, , 247-277.	0.2	19
39	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
40	A stabilizer free weak Galerkin finite element method with supercloseness of order two. Numerical Methods for Partial Differential Equations, 2021, 37, 1012-1029.	3.6	18
41	Two-level discretizations of the stream function form of the navier-stokes equations. Numerical Functional Analysis and Optimization, 1999, 20, 909-916.	1.4	17
42	A mixed nonconforming finite element for linear elasticity. Numerical Methods for Partial Differential Equations, 2005, 21, 1043-1051.	3.6	16
43	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
44	A weak Galerkin least-squares finite element method for divâ€“curl systems. Journal of Computational Physics, 2018, 363, 79-86.	3.8	16
45	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
46	A discrete divergence-free basis for finite element methods. Numerical Algorithms, 1997, 16, 365-380.	1.9	14
47	Stabilized discontinuous finite element approximations for Stokes equations. Journal of Computational and Applied Mathematics, 2007, 198, 236-252.	2.0	13
48	Superconvergence of finite volume methods for the Stokes equations. Numerical Methods for Partial Differential Equations, 2009, 25, 1212-1230.	3.6	13
49	A hybridized formulation for the weak Galerkin mixed finite element method. Journal of Computational and Applied Mathematics, 2016, 307, 335-345.	2.0	13
50	A discrete divergence free weak Galerkin finite element method for the Stokes equations. Applied Numerical Mathematics, 2018, 125, 172-182.	2.1	13
51	A rectangular element for the Reissner-Mindlin plate. Numerical Methods for Partial Differential Equations, 2000, 16, 184-193.	3.6	12
52	A finite volume method for solving Navierâ€“Stokes problems. Nonlinear Analysis: Theory, Methods & Applications, 2011, 74, 6686-6695.	1.1	12
53	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
54	Development of a P₂ element with optimal L² convergence for biharmonic equation. Numerical Methods for Partial Differential Equations, 2019, 35, 1497-1508.	3.6	12

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55	A new <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e1351" altimg="si5.svg"><mml:msub><mml:mrow><mml:mi>P</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:msub></mml:math> weak Galerkin method for the Biharmonic equation. Journal of Computational and Applied Mathematics, 2020, 364, 112337.	2.0	12
56	Construction of null bases for the divergence operator associated with incompressible navier-stokes equations. Linear Algebra and Its Applications, 1992, 171, 9-52.	0.9	11
57	Least-squares finite element approximations for the Reissner-Mindlin plate. Numerical Linear Algebra With Applications, 1999, 6, 479-496.	1.6	11
58	Superconvergence analysis for the Navierâ€“Stokes equations. Applied Numerical Mathematics, 2002, 41, 515-527.	2.1	11
59	A posterior error estimate for finite volume methods of the second order elliptic problem. Numerical Methods for Partial Differential Equations, 2011, 27, 1165-1178.	3.6	11
60	A simple finite element method for linear hyperbolic problems. Journal of Computational and Applied Mathematics, 2018, 330, 330-339.	2.0	11
61	A simple finite element method for the Stokes equations. Advances in Computational Mathematics, 2017, 43, 1305-1324.	1.6	10
62	Interior energy error estimates for the weak Galerkin finite element method. Numerische Mathematik, 2018, 139, 447-478.	1.9	10
63	A locking-free weak Galerkin finite element method for Reissnerâ€“Mindlin plate on polygonal meshes. Computers and Mathematics With Applications, 2020, 80, 906-916.	2.7	10
64	A stabilizer free WG method for the Stokes equations with order two superconvergence on polytopal mesh. Electronic Research Archive, 2021, 29, 3609-3627.	0.9	10
65	Discrete maximum principle for the P1â^'P0 weak Galerkin finite element approximations. Journal of Computational Physics, 2018, 362, 114-130.	3.8	9
66	A unified a posteriori error estimator for finite volume methods for the stokes equations. Mathematical Methods in the Applied Sciences, 2018, 41, 866-880.	2.3	9
67	A least-squares finite element approximation for the compressible Stokes equations. Numerical Methods for Partial Differential Equations, 2000, 16, 62-70.	3.6	8
68	A Posteriori Error Estimation for an Interior Penalty Type Method Employing $H(mathrm{div})$ Elements for the Stokes Equations. SIAM Journal of Scientific Computing, 2011, 33, 131-152.	2.8	8
69	A Comparative Study of Locally Conservative Numerical Methods for Darcy's Flows. Procedia Computer Science, 2011, 4, 974-983.	2.0	8
70	Stabilizer-free weak Galerkin methods for monotone quasilinear elliptic PDEs. Results in Applied Mathematics, 2020, 8, 100097.	1.3	8
71	The construction of a null basis for a discrete divergence operator. Journal of Computational and Applied Mathematics, 1995, 58, 117-133.	2.0	7
72	Domain decomposition for a least-square finite element method for second order elliptic problem. Applied Mathematics and Computation, 1998, 91, 233-242.	2.2	7

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73	Analysis and convergence of finite volume method using discontinuous bilinear functions. Numerical Methods for Partial Differential Equations, 2008, 24, 335-348.	3.6	7
74	A posteriori error estimates for finite volume method based on bilinear trial functions for the elliptic equation. Journal of Computational and Applied Mathematics, 2013, 254, 185-191.	2.0	7
75	A weak Galerkin generalized multiscale finite element method. Journal of Computational and Applied Mathematics, 2016, 305, 68-81.	2.0	7
76	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
77	A conforming discontinuous Galerkin finite element method for the Stokes problem on polytopal meshes. International Journal for Numerical Methods in Fluids, 2021, 93, 1913-1928.	1.6	7
78	A numerical scheme with divergence free H-div triangular finite element for the Stokes equations. Applied Numerical Mathematics, 2021, 167, 211-217.	2.1	7
79	A stabilizer free weak Galerkin finite element method on polytopal mesh: Part III. Journal of Computational and Applied Mathematics, 2021, 394, 113538.	2.0	7
80	A discontinuous Galerkin method for the Reissnerâ€“Mindlin plate in the primitive variables. Applied Mathematics and Computation, 2004, 149, 65-82.	2.2	6
81	Discontinuous Stable Elements for the Incompressible Flow. Advances in Computational Mathematics, 2004, 20, 333-345.	1.6	6
82	A weak Galerkin finite element scheme with boundary continuity for second-order elliptic problems. Computers and Mathematics With Applications, 2017, 74, 2243-2252.	2.7	6
83	A Weak Galerkin Method for the Reissnerâ€“Mindlin Plate in Primary Form. Journal of Scientific Computing, 2018, 75, 782-802.	2.3	6
84	Development of Pressure-Robust Discontinuous Galerkin Finite Element Methods for the Stokes Problem. Journal of Scientific Computing, 2021, 89, 1.	2.3	6
85	A weak divergence CDG method for the biharmonic equation on triangular and tetrahedral meshes. Applied Numerical Mathematics, 2022, 178, 155-165.	2.1	6
86	A Modified Weak Galerkin Finite Element Method for the Biharmonic Equation on Polytopal Meshes. Communications on Applied Mathematics and Computation, 2021, 3, 91-105.	1.7	5
87	A C ⁰-conforming DG finite element method for biharmonic equations on triangle/tetrahedron. Journal of Numerical Mathematics, 2021, 30, 163-172.	3.5	5
88	The construction of an optimal weakly divergence-free macroelement. International Journal for Numerical Methods in Engineering, 1993, 36, 2245-2262.	2.8	4
89	The derivation of minimal support basis functions for the discrete divergence operator. Journal of Computational and Applied Mathematics, 1995, 61, 105-116.	2.0	4
90	<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

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91	A weak Galerkin least squares finite element method of Cauchy problem for Poisson equation. Journal of Computational and Applied Mathematics, 2022, 401, 113767.	2.0	4
92	Superconvergence of finite element approximations for the Stokes problem by -projection methods. Applied Mathematics and Computation, 2013, 219, 5649-5656.	2.2	3
93	A discontinuous least-squares finite-element method for second-order elliptic equations. International Journal of Computer Mathematics, 2019, 96, 557-567.	1.8	3
94	A weak Galerkin finite element method for nonlinear conservation laws. Electronic Research Archive, 2021, 29, 1897-1923.	0.9	3
95	A stabilizer-free pressure-robust finite element method for the Stokes equations. Advances in Computational Mathematics, 2021, 47, 1.	1.6	3
96	A <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e1351" altimg="si5.svg"><mml:msub><mml:mrow><mml:mi>P</mml:mi></mml:mrow><mml:mrow><mml:mi>k</mml:mi><mml:mo>+</mml:m polynomial lifting operator on polygons and polyhedrons. Applied Mathematics Letters, 2021, 116, 107033.	2.7	3
97	A stabilizer free weak Galerkin finite element method on polytopal mesh: Part II. Journal of Computational and Applied Mathematics, 2021, 394, 113525.	2.0	3
98	Stabilized finite element approximations for the Reissnerâ€“Mindlin plate. Advances in Computational Mathematics, 2000, 13, 375-386.	1.6	2
99	de Rham complexes for weak Galerkin finite element spaces. Journal of Computational and Applied Mathematics, 2021, 397, 113645.	2.0	2
100	Superconvergence of nonconforming finite element method for the Stokes equations. Numerical Methods for Partial Differential Equations, 2002, 18, 143-154.	3.6	2
101	A discontinuous Galerkin least-squares method for divâ€“curl systems. Journal of Computational and Applied Mathematics, 2020, 367, 112474.	2.0	1
102	Weak Galerkin finite element methods with or without stabilizers. Numerical Algorithms, 2021, 88, 1361.	1.9	1
103	A Mixed Finite-Element Method on Polytopal Mesh. Communications on Applied Mathematics and Computation, 2022, 4, 1374-1385.	1.7	1
104	A time-explicit weak Galerkin scheme for parabolic equations on polytopal partitions. Journal of Numerical Mathematics, 2022, .	3.5	1
105	A new weak gradient for the stabilizer free weak Galerkin method with polynomial reduction. Discrete and Continuous Dynamical Systems - Series B, 2021, 26, 4131.	0.9	0
106	Development of a LDG method on polytopal mesh with optimal order of convergence. Journal of Computational and Applied Mathematics, 2022, 410, 114179.	2.0	0