Weimin Han

List of Publications by Year
in descending order

133 papers	2,636 citations	236925 25 h-index	233421 45 g-index
138 all docs	138 docs citations	138 times ranked	769 citing authors

#	Article	IF	Citations
1	A Class of Variational-Hemivariational Inequalities with Applications to Frictional Contact Problems. SIAM Journal on Mathematical Analysis, 2014, 46, 3891-3912.	1.9	119
2	Convergence of the forward-backward sweep method in optimal control. Computational Optimization and Applications, 2012, 53, 207-226.	1.6	110
3	A reproducing kernel method with nodal interpolation property. International Journal for Numerical Methods in Engineering, 2003, 56, 935-960.	2.8	84
4	Variational and numerical analysis of a quasistatic viscoelastic problem with normal compliance, friction and damage. Journal of Computational and Applied Mathematics, 2001, 137, 377-398.	2.0	82
5	Numerical analysis of hemivariational inequalities in contact mechanics. Acta Numerica, 2019, 28, 175-286.	10.7	77
6	Discontinuous Galerkin Methods for Solving Elliptic Variational Inequalities. SIAM Journal on Numerical Analysis, 2010, 48, 708-733.	2.3	70
7	Numerical Analysis of Elliptic Hemivariational Inequalities. SIAM Journal on Numerical Analysis, 2017, 55, 640-663.	2.3	66
8	Mathematical theory and numerical analysis of bioluminescence tomography. Inverse Problems, 2006, 22, 1659-1675.	2.0	61
9	On the Finite Element Method for Mixed Variational Inequalities Arising in Elastoplasticity. SIAM Journal on Numerical Analysis, 1995, 32, 1778-1807.	2.3	60
10	Numerical Analysis of a Hyperbolic Hemivariational Inequality Arising in Dynamic Contact. SIAM Journal on Numerical Analysis, 2015, 53, 527-550.	2.3	50
11	Numerical analysis of stationary variational-hemivariational inequalities. Numerische Mathematik, 2018, 139, 563-592.	1.9	48
12	Discontinuous Galerkin methods for solving the Signorini problem. IMA Journal of Numerical Analysis, 2011, 31, 1754-1772.	2.9	45
13	Numerical analysis of history-dependent variational–hemivariational inequalities with applications to contact problems. European Journal of Applied Mathematics, 2015, 26, 427-452.	2.9	45
14	Numerical analysis of stationary variational-hemivariational inequalities with applications in contact mechanics. Mathematics and Mechanics of Solids, 2018, 23, 279-293.	2.4	44
15	Discrete-Ordinate Discontinuous Galerkin Methods for Solving the Radiative Transfer Equation. SIAM Journal of Scientific Computing, 2010, 32, 477-497.	2.8	43
16	A frictionless contact problem for elastic–viscoplastic materials with normal compliance and damage. Computer Methods in Applied Mechanics and Engineering, 2002, 191, 5007-5026.	6.6	42
17	Analysis of a general dynamic history-dependent variational–hemivariational inequality. Nonlinear Analysis: Real World Applications, 2017, 36, 69-88.	1.7	36
18	A posteriori error analysis for finite element solutions of a frictional contact problem. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 1252-1274.	6.6	34

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19	A General Total Variation Minimization Theorem for Compressed Sensing Based Interior Tomography. International Journal of Biomedical Imaging, 2009, 2009, 1-3.	3.9	33
20	A posteriori error estimation and adaptive solution of elliptic variational inequalities of the second kind. Applied Numerical Mathematics, 2005, 52, 13-38.	2.1	32
21	A dynamic viscoelastic contact problem with normal compliance and damage. Finite Elements in Analysis and Design, 2005, 42, 1-24.	3.2	30
22	Discontinuous Galerkin methods for solving a quasistatic contact problem. Numerische Mathematik, 2014, 126, 771-800.	1.9	28
23	Discontinuous Galerkin Methods for a Stationary Navier–Stokes Problem with a Nonlinear Slip Boundary Condition of Friction Type. Journal of Scientific Computing, 2018, 76, 888-912.	2.3	28
24	A posteriori error analysis for linearization of nonlinear elliptic problems and their discretizations. Mathematical Methods in the Applied Sciences, 1994, 17, 487-508.	2.3	24
25	A posteriori error estimates for discontinuous Galerkin methods of obstacle problems. Nonlinear Analysis: Real World Applications, 2015, 22, 664-679.	1.7	24
26	A penalty method for history-dependent variational–hemivariational inequalities. Computers and Mathematics With Applications, 2018, 75, 2561-2573.	2.7	23
27	Virtual Element Method for an Elliptic Hemivariational Inequality with Applications to Contact Mechanics. Journal of Scientific Computing, 2019, 81, 2388-2412.	2.3	23
28	Convergence analysis of a hierarchical enrichment of Dirichlet boundary conditions in a mesh-free method. International Journal for Numerical Methods in Engineering, 2002, 53, 1323-1336.	2.8	21
29	Theoretical and numerical analysis on multispectral bioluminescence tomography. IMA Journal of Applied Mathematics, 2007, 72, 67-85.	1.6	21
30	Bioluminescence tomography with optimized optical parameters. Inverse Problems, 2007, 23, 1215-1228.	2.0	21
31	A theoretical study for RTE-based parameter identification problems. Inverse Problems, 2013, 29, 095002.	2.0	20
32	Virtual Element Methods for Elliptic Variational Inequalities of the Second Kind. Journal of Scientific Computing, 2019, 80, 60-80.	2.3	20
33	Finite element analysis of a holonomic elastic-plastic problem. Numerische Mathematik, 1991, 60, 493-508.	1.9	19
34	Convergence of approximations to the primal problem in plasticity under conditions of minimal regularity. Numerische Mathematik, 2000, 87, 283-315.	1.9	19
35	The Nonconforming Virtual Element Method for a Stationary Stokes Hemivariational Inequality with Slip Boundary Condition. Journal of Scientific Computing, 2020, 85, 1.	2.3	19
36	Minimization principles for elliptic hemivariational inequalities. Nonlinear Analysis: Real World Applications, 2020, 54, 103114.	1.7	19

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37	A discontinuous Galerkin method for seismic wave propagation in coupled elastic and poroelastic media. Geophysical Prospecting, 2019, 67, 1392-1403.	1.9	17
38	Singular Perturbations of Variational-Hemivariational Inequalities. SIAM Journal on Mathematical Analysis, 2020, 52, 1549-1566.	1.9	17
39	The virtual element method for general elliptic hemivariational inequalities. Journal of Computational and Applied Mathematics, 2021, 389, 113330.	2.0	17
40	Nonconforming Finite Element Analysis for a Plate Contact Problem. SIAM Journal on Numerical Analysis, 2002, 40, 1683-1697.	2.3	16
41	Variational and numerical analysis of a dynamic frictionless contact problem with adhesion. Journal of Computational and Applied Mathematics, 2003, 156, 127-157.	2.0	16
42	RTE-based bioluminescence tomography: A theoretical study. Inverse Problems in Science and Engineering, 2011, 19, 435-459.	1.2	16
43	Image Reconstruction for Diffuse Optical Tomography Based on Radiative Transfer Equation. Computational and Mathematical Methods in Medicine, 2015, 2015, 1-23.	1.3	16
44	Adaptive discontinuous Galerkin methods for solving an incompressible Stokes flow problem with slip boundary condition of frictional type. Journal of Computational and Applied Mathematics, 2020, 371, 112700.	2.0	16
45	Mathematical Study and Numerical Simulation of Multispectral Bioluminescence Tomography. International Journal of Biomedical Imaging, 2006, 2006, 1-10.	3.9	15
46	Finite element method for a stationary Stokes hemivariational inequality with slip boundary condition. IMA Journal of Numerical Analysis, 2020, 40, 2696-2716.	2.9	15
47	A new class of hyperbolic variational–hemivariational inequalities driven by non-linear evolution equations. European Journal of Applied Mathematics, 2021, 32, 59-88.	2.9	15
48	On the numerical approximation of a frictional contact problem with normal compliance. Numerical Functional Analysis and Optimization, 1996, 17, 307-321.	1.4	14
49	A frictionless contact problem for viscoelastic materials. Journal of Applied Mathematics, 2002, 2, 1-21.	0.9	14
50	A class of hemivariational inequalities for nonstationary Navier–Stokes equations. Nonlinear Analysis: Real World Applications, 2016, 31, 257-276.	1.7	14
51	Mixed Total Variation and L^1 Regularization Method for Optical Tomography Based on Radiative Transfer Equation. Computational and Mathematical Methods in Medicine, 2017, 2017, 1-15.	1.3	14
52	On convergence of numerical methods for variational–hemivariational inequalities under minimal solution regularity. Applied Mathematics Letters, 2019, 93, 105-110.	2.7	14
53	A Theoretical Framework of X-Ray Dark-Field Tomography. SIAM Journal on Applied Mathematics, 2011, 71, 1557-1577.	1.8	13
54	Numerical analysis of history-dependent quasivariational inequalities with applications in contact mechanics. ESAIM: Mathematical Modelling and Numerical Analysis, 2014, 48, 919-942.	1.9	13

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55	Numerical analysis of history-dependent variational–hemivariational inequalities with applications in contact mechanics. Journal of Computational and Applied Mathematics, 2019, 351, 364-377.	2.0	13
56	Optimal Order Error Estimates for Discontinuous Galerkin Methods for the Wave Equation. Journal of Scientific Computing, 2019, 78, 121-144.	2.3	12
57	Numerical analysis of history-dependent hemivariational inequalities and applications to viscoelastic contact problems with normal penetration. Computers and Mathematics With Applications, 2019, 77, 2596-2607.	2.7	12
58	Mixed Finite Element Method for a Hemivariational Inequality of Stationary Navier–Stokes Equations. Journal of Scientific Computing, 2021, 89, 1.	2.3	12
59	Recovery-based error estimation and adaptive solution of elliptic variational inequalities of the second kind. Communications in Mathematical Sciences, 2004, 2, 1-18.	1.0	12
60	Numerical approximations of problems in plasticity: error analysis and solution algorithms. Numerical Linear Algebra With Applications, 1997, 4, 191-204.	1.6	11
61	Minimum error bound of signal reconstruction. IEEE Signal Processing Letters, 1999, 6, 309-311.	3.6	11
62	A new general mathematical framework for bioluminescence tomography. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 524-535.	6.6	11
63	On a family of differential approximations of the radiative transfer equation. Journal of Mathematical Chemistry, 2012, 50, 689-702.	1.5	11
64	On penalty method for unilateral contact problem with non-monotone contact condition. Journal of Computational and Applied Mathematics, 2019, 356, 293-301.	2.0	11
65	Another view for a posteriori error estimates for variational inequalities of the second kind. Applied Numerical Mathematics, 2013, 72, 225-233.	2.1	10
66	A Revisit of Elliptic Variational-Hemivariational Inequalities. Numerical Functional Analysis and Optimization, 2021, 42, 371-395.	1.4	10
67	NUMERICAL ANALYSIS OF A CONTACT PROBLEM IN RATE-TYPE VISCOPLASTICITY. Numerical Functional Analysis and Optimization, 2001, 22, 505-527.	1.4	9
68	On simplified spherical harmonics equations for the radiative transfer equation. Journal of Mathematical Chemistry, 2011, 49, 1785-1797.	1.5	9
69	Analysis of a viscoelastic contact problem with multivalued normal compliance and unilateral constraint. Computer Methods in Applied Mechanics and Engineering, 2013, 264, 12-22.	6.6	9
70	Numerical Analysis of Elliptic Hemivariational Inequalities for Semipermeable Media. Journal of Computational Mathematics, 2019, 37, 543-560.	0.4	9
71	Inexact Uzawa algorithms for variational inequalities of the second kind. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 1451-1462.	6.6	8
72	Well-posedness of the Fokker–Planck equation in a scattering process. Journal of Mathematical Analysis and Applications, 2013, 406, 531-536.	1.0	8

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73	Discrete gradient method in solid mechanics. International Journal for Numerical Methods in Engineering, 2008, 74, 619-641.	2.8	7
74	A novel approach for studies of multispectral bioluminescence tomography. Numerische Mathematik, 2010, 115, 553-583.	1.9	7
75	On numerical approximation of a variational–hemivariational inequality modeling contact problems for locking materials. Computers and Mathematics With Applications, 2019, 77, 2894-2905.	2.7	7
76	Convergence analysis of discrete approximations of problems in hardening plasticity. Computer Methods in Applied Mechanics and Engineering, 1999, 171, 327-340.	6.6	6
77	A coupled complex boundary method for an inverse conductivity problem with one measurement. Applicable Analysis, 2017, 96, 869-885.	1.3	6
78	Numerical analysis of an evolutionary variational–hemivariational inequality with application in contact mechanics. Computer Methods in Applied Mechanics and Engineering, 2017, 318, 882-897.	6.6	6
79	Numerical analysis of an evolutionary variational–hemivariational inequality with application to a dynamic contact problem. Journal of Computational and Applied Mathematics, 2019, 358, 163-178.	2.0	6
80	Convergence analysis of penalty based numerical methods for constrained inequality problems. Numerische Mathematik, 2019, 142, 917-940.	1.9	6
81	Minimization principle in study of a Stokes hemivariational inequality. Applied Mathematics Letters, 2021, 121, 107401.	2.7	6
82	Numerical analysis of the diffusive-viscous wave equation. Computers and Mathematics With Applications, 2021, 102, 54-64.	2.7	6
83	Minimax principles for elliptic mixed hemivariational–variational inequalities. Nonlinear Analysis: Real World Applications, 2022, 64, 103448.	1.7	6
84	Bioluminescence Tomography: Biomedical Background, Mathematical Theory, and Numerical Approximation. Journal of Computational Mathematics, 2008, 26, 324-335.	0.4	6
85	Virtual element method for a frictional contact problem with normal compliance. Communications in Nonlinear Science and Numerical Simulation, 2022, 107, 106125.	3.3	6
86	Quantitative error estimates for coefficient idealization in linear elliptic problems. Mathematical Methods in the Applied Sciences, 1994, 17, 971-987.	2.3	5
87	Nonconforming Finite Element Methods for a Clamped Plate with Elastic Unilateral Obstacle. Journal of Integral Equations and Applications, 2006, 18, 267.	0.6	5
88	An integrated solution and analysis of bioluminescence tomography and diffuse optical tomography. Communications in Numerical Methods in Engineering, 2009, 25, 639-656.	1.3	5
89	Numerical Approximation of a Unilateral Obstacle Problem. Journal of Optimization Theory and Applications, 2012, 153, 177-194.	1.5	5
90	A fast solver for an inverse problem arising in bioluminescence tomography. Journal of Computational and Applied Mathematics, 2014, 267, 228-243.	2.0	5

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91	A Discrete-Ordinate Discontinuous-Streamline Diffusion Method for the Radiative Transfer Equation. Communications in Computational Physics, 2016, 20, 1443-1465.	1.7	5
92	Stability analysis of stationary variational and hemivariational inequalities with applications. Nonlinear Analysis: Real World Applications, 2019, 50, 171-191.	1.7	5
93	Numerical analysis of a contact problem with wear. Computers and Mathematics With Applications, 2020, 79, 2942-2951.	2.7	5
94	Analysis of an a posteriori error estimator for a variational inequality governed by the Stokes equations. Journal of Computational and Applied Mathematics, 2020, 372, 112721.	2.0	5
95	Numerical analysis of a parabolic hemivariational inequality for semipermeable media. Journal of Computational and Applied Mathematics, 2021, 389, 113326.	2.0	5
96	The virtual element method for an obstacle problem of a Kirchhoff-Love plate. Communications in Nonlinear Science and Numerical Simulation, 2021, 103, 106008.	3.3	5
97	Recent Development in Bioluminescence Tomography. , 0, , .		4
98	Numerical approximation of bioluminescence tomography based on a new formulation. Journal of Engineering Mathematics, 2009, 63, 121-133.	1.2	4
99	Discontinuous Galerkin Methods for Solving a Frictional Contact Problem with Normal Compliance. Numerical Functional Analysis and Optimization, 2018, 39, 1248-1264.	1.4	4
100	Numerical studies of a hemivariational inequality for a viscoelastic contact problem with damage. Journal of Computational and Applied Mathematics, 2020, 377, 112886.	2.0	4
101	Seismic wave equations in tight oil/gas sandstone media. Science China Earth Sciences, 2021, 64, 377-387.	5.2	4
102	Well-posedness of a general class of elliptic mixed hemivariational–variational inequalities. Nonlinear Analysis: Real World Applications, 2022, 66, 103553.	1.7	4
103	An asymptotic regularization method for coefficient identification of a generalized nonhomogeneous Helmholtz equation. Japan Journal of Industrial and Applied Mathematics, 1996, 13, 51-61.	0.9	3
104	On the kacanov method for a quasi-newtonian flow problem. Numerical Functional Analysis and Optimization, 1998, 19, 961-970.	1.4	3
105	A New Coupled Complex Boundary Method for Bioluminescence Tomography. Communications in Computational Physics, 2016, 19, 226-250.	1.7	3
106	Radiative transfer with delta-Eddington-type phase functions. Applied Mathematics and Computation, 2017, 300, 70-78.	2.2	3
107	Energy dependent radiative transfer equation and energy discretization. Journal of Computational and Applied Mathematics, 2017, 323, 147-158.	2.0	3
108	Convergence analysis of numerical solutions for optimal control of variational–hemivariational inequalities. Applied Mathematics Letters, 2020, 105, 106327.	2.7	3

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109	Theory of Differential Approximations of Radiative Transfer Equation. , 2013, , 121-148.		3
110	Minimization arguments in analysis of variationalâ€"hemivariational inequalities. Zeitschrift Fur Angewandte Mathematik Und Physik, 2022, 73, 1.	1.4	3
111	A Pressure Projection Stabilized Mixed Finite Element Method for a Stokes Hemivariational Inequality. Journal of Scientific Computing, 2022, 92, .	2.3	3
112	Studies of a mathematical model for temperature-modulated bioluminescence tomography. Applicable Analysis, 2009, 88, 193-213.	1.3	2
113	On some discretization methods for solving a linear matrix ordinary differential equation. Journal of Mathematical Chemistry, 2011, 49, 1026-1041.	1.5	2
114	A general framework for integration of bioluminescence tomography and diffuse optical tomography. Inverse Problems in Science and Engineering, 2014, 22, 458-482.	1.2	2
115	Numerical analysis of the energy-dependent radiative transfer equation. IMA Journal of Numerical Analysis, 2019, 39, 1529-1562.	2.9	2
116	Numerical analysis of history-dependent variational-hemivariational inequalities. Science China Mathematics, 2020, 63, 2207-2232.	1.7	2
117	A mixed discontinuous Galerkin method for an unsteady incompressible Darcy equation. Applicable Analysis, 2020, , 1-23.	1.3	2
118	Unconditional stability and optimal error estimates of discontinuous Galerkin methods for the second-order wave equation. Applicable Analysis, 2021, 100, 1143-1157.	1.3	2
119	Adaptive Finite Element Solution of Variational Inequalities with Application in Contact Problems. Advances in Mechanics and Mathematics, 2009, , 25-106.	0.7	2
120	Well-posedness analysis of a stationary Navierâ€"Stokes hemivariational inequality. Fixed Point Theory and Algorithms for Sciences and Engineering, 2021, 2021, .	0.6	2
121	A Nonconforming Virtual Element Method for a Fourth-order Hemivariational Inequality in Kirchhoff Plate Problem. Journal of Scientific Computing, 2022, 90, .	2.3	2
122	Numerical analysis of doubly-history dependent variational inequalities in contact mechanics. Fixed Point Theory and Algorithms for Sciences and Engineering, 2021, 2021, .	0.6	2
123	Quantitative justification of linearization in nonlinear hencky material problems. Numerical Functional Analysis and Optimization, 1997, 18, 325-341.	1.4	1
124	Some integral identities for spherical harmonics in an arbitrary dimension. Journal of Mathematical Chemistry, 2012, 50, 1126-1135.	1.5	1
125	A posteriori error analysis in radiative transfer. Applicable Analysis, 2015, 94, 2517-2534.	1.3	1
126	Discontinuous Galerkin methods for solving a hyperbolic inequality. Numerical Methods for Partial Differential Equations, 2019, 35, 894-915.	3.6	1

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127	Numerical approximation of an electro-elastic frictional contact problem modeled by hemivariational inequality. Computational and Applied Mathematics, 2020, 39, 1.	2.2	1
128	On a family of discontinuous Galerkin fully-discrete schemes for the wave equation. Computational and Applied Mathematics, 2021, 40, 1.	2.2	1
129	A-posteriori error analysis for material idealizations in modeling one-dimensional elastostatic problems. Numerical Functional Analysis and Optimization, 1994, 15, 621-634.	1.4	0
130	Error estimates of numerical solutions for a cyclic plasticity problem. Computational Mechanics, 1999, 23, 33-38.	4.0	0
131	Numerical solution of a contact problem with unilateral constraint and history-dependent penetration. Journal of Engineering Mathematics, 2016, 97, 177-194.	1.2	0
132	Smoothing quadratic regularization method for hemivariational inequalities. Optimization, 2020, 69, 2217-2240.	1.7	0
133	Morozov's discrepancy principle for <inline-formula><tex-math id="M1">$ alphaell_1-etaell_2 $</tex-math></inline-formula> sparsity regularization. Inverse Problems and Imaging, 2023, 17, 157-179.	1.1	0