Zhiqiang Cai

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4203655/publications.pdf

Version: 2024-02-01

		471509	477307
57	1,003	17	29
papers	citations	h-index	g-index

58	58	58	586
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	What the Microscale Systems â€œSeeâ€•In Biological Assemblies: Cells and Viruses?. Analytical Chemistry, 2022, 94, 59-74.	6.5	4
2	Self-adaptive deep neural network: Numerical approximation to functions and PDEs. Journal of Computational Physics, 2022, 455, 111021.	3.8	3
3	Least-squares ReLU neural network (LSNN) method for scalar nonlinear hyperbolic conservation law. Applied Numerical Mathematics, 2022, 174, 163-176.	2.1	10
4	Adaptive two-layer ReLU neural network: II. Ritz approximation to elliptic PDEs. Computers and Mathematics With Applications, 2022, 113, 103-116.	2.7	5
5	Adaptive two-layer ReLU neural network: I. Best least-squares approximation. Computers and Mathematics With Applications, 2022, 113, 34-44.	2.7	10
6	A finite element method for Dirichlet boundary control of elliptic partial differential equations. Communications in Mathematical Sciences, 2022, 20, 1081-1102.	1.0	1
7	How does DNA â€˜meetâ€™ capillary-based microsystems?. Analyst, The, 2021, 146, 48-63.	3.5	3
8	Improved ZZ a posteriori error estimators for diffusion problems: Discontinuous elements. Applied Numerical Mathematics, 2021, 159, 174-189.	2.1	3
9	Screening of three ammonia-oxidizing bacteria and construction of compounding agent CCZU C6 in high-efficiency ammonia-oxidizing. Journal of Water Process Engineering, 2021, 40, 101862.	5.6	8
10	Improvement of the Catalytic Activity of Chitosanase BsCsn46A from Bacillus subtilis by Site-Saturation Mutagenesis of Proline121. Journal of Agricultural and Food Chemistry, 2021, 69, 11835-11846.	5.2	24
11	Least-squares ReLU neural network (LSNN) method for linear advection-reaction equation. Journal of Computational Physics, 2021, 443, 110514.	3.8	16
12	Generalized Pragerâ€“Synge identity and robust equilibrated error estimators for discontinuous elements. Journal of Computational and Applied Mathematics, 2021, 398, 113673.	2.0	4
13	Adaptive Finite Element Method for Dirichlet Boundary Control of Elliptic Partial Differential Equations. Journal of Scientific Computing, 2021, 89, 1.	2.3	1
14	Robust equilibrated a posteriori error estimator for higher order finite element approximations to diffusion problems. Numerische Mathematik, 2020, 144, 1-21.	1.9	8
15	Deep least-squares methods: An unsupervised learning-based numerical method for solving elliptic PDEs. Journal of Computational Physics, 2020, 420, 109707.	3.8	40
16	Robust Equilibrated Error Estimator for Diffusion Problems: Mixed Finite Elements in Two Dimensions. Journal of Scientific Computing, 2020, 83, 1.	2.3	5
17	Least-Squares Methods for Elasticity and Stokes Equations with Weakly Imposed Symmetry. Computational Methods in Applied Mathematics, 2019, 19, 415-430.	0.8	4
18	Finite Element Method for Two-Sided Fractional Differential Equations with Variable Coefficients: Galerkin Approach. Journal of Scientific Computing, 2019, 79, 700-717.	2.3	20

#	Article	IF	Citations
19	Eukaryal composition and diversity in anaerobic soils influenced by the novel chiral insecticide Paichongding. AMB Express, 2018, 8, 62.	3.0	3
20	A hybrid a posteriori error estimator for conforming finite element approximations. Computer Methods in Applied Mechanics and Engineering, 2018, 339, 320-340.	6.6	11
21	Discontinuous Finite Element Methods for Interface Problems: Robust A Priori and A Posteriori Error Estimates. SIAM Journal on Numerical Analysis, 2017, 55, 400-418.	2.3	32
22	Synthetic aperture radar detection and characteristic analysis of cyanobacterial scum in Lake Taihu. Journal of Applied Remote Sensing, 2017, 11, 012006.	1.3	9
23	Pyrosequencing Reveals Soil Enzyme Activities and Bacterial Communities Impacted by Graphene and Its Oxides. Journal of Agricultural and Food Chemistry, 2017, 65, 9191-9199.	5.2	23
24	Improved ZZ a posteriori error estimators for diffusion problems: Conforming linear elements. Computer Methods in Applied Mechanics and Engineering, 2017, 313, 433-449.	6.6	10
25	Residual-based a posteriori error estimate for interface problems: Nonconforming linear elements. Mathematics of Computation, 2016, 86, 617-636.	2.1	10
26	Effects of the novel cis-nitromethylene neonicotinoid insecticide Paichongding on enzyme activities and microorganisms in yellow loam and Huangshi soils. Environmental Science and Pollution Research, 2016, 23, 7786-7793.	5.3	15
27	Leastâ€squares method for the Oseen equation. Numerical Methods for Partial Differential Equations, 2016, 32, 1289-1303.	3.6	9
28	A fusant of Amycolatopsis sp. M3-1 and Pseudomonas sp. Nai8 with high capacity of degrading novel pyrimidynyloxybenzoic herbicide ZJ0273 and naphthalene. Environmental Science and Pollution Research, 2016, 23, 3517-3524.	5.3	0
29	Impact of the novel neonicotinoid insecticide Paichongding on bacterial communities in yellow loam and Huangshi soils. Environmental Science and Pollution Research, 2016, 23, 5134-5142.	5.3	16
30	Aerobic biodegradation kinetics and pathway of the novel cis -nitromethylene neonicotinoid insecticide Paichongding in yellow loam and Huangshi soils. Applied Soil Ecology, 2016, 98, 150-158.	4.3	7
31	Biodegradation of dye-containing wastewater by fusant strains using a sequential anaerobicâ€“aerobic process. Desalination and Water Treatment, 2016, 57, 18888-18896.	1.0	0
32	Biodegradation of Azo Dye Disperse Orange Sâ€RL by a Newly Isolated Strain Acinetobacter sp. SRL8. Water Environment Research, 2015, 87, 516-523.	2.7	13
33	Anaerobic Degradation Pathway of the Novel Chiral Insecticide Paichongding and Its Impact on Bacterial Communities in Soils. Journal of Agricultural and Food Chemistry, 2015, 63, 7151-7160.	5.2	32
34	Microbial Degradation Mechanism and Pathway of the Novel Insecticide Paichongding by a Newly Isolated Sphingobacterium sp. P1-3 from Soil. Journal of Agricultural and Food Chemistry, 2015, 63, 3823-3829.	5.2	31
35	A recovery-based a posteriori error estimator for (curl) interface problems. Computer Methods in Applied Mechanics and Engineering, 2015, 296, 169-195.	6.6	14
36	Effects of the novel pyrimidynyloxybenzoic herbicide ZJ0273 on enzyme activities, microorganisms and its degradation in Chinese soils. Environmental Science and Pollution Research, 2015, 22, 4425-4433.	5.3	17

#	Article	IF	Citations
37	Isolation and Characterization of Pseudomonas sp. nai8 Capable of Naphthalene Degradation. Asian Journal of Chemistry, 2014, 26, 164-168.	0.3	1
38	Biosynthesis of myristyl serinate by immobilized Candida antarctica lipase in two-phase system. Journal of Molecular Catalysis B: Enzymatic, 2014, 108, 118-122.	1.8	4
39	Microbial degradation characteristics and kinetics of novel pyrimidynyloxybenzoic herbicide ZJ0273 by a newly isolated Bacillus sp. CY. Environmental Science and Pollution Research, 2013, 20, 8831-8838.	5.3	8
40	Stereoselective uptake and distribution of the chiral neonicotinoid insecticide, Paichongding, in Chinese pak choi (Brassica campestris ssp. chinenesis). Journal of Hazardous Materials, 2013, 262, 862-869.	12.4	26
41	Robust Equilibrated Residual Error Estimator for Diffusion Problems: Conforming Elements. SIAM Journal on Numerical Analysis, 2012, 50, 151-170.	2.3	27
42	Degradation of the novel herbicide ZJ0273 by Amycolatopsis sp. M3-1 isolated from soil. Applied Microbiology and Biotechnology, 2012, 96, 1371-1379.	3.6	38
43	Robust residualâ€•and recoveryâ€based a posteriori error estimators for interface problems with flux jumps. Numerical Methods for Partial Differential Equations, 2012, 28, 476-491.	3.6	5
44	Enzyme Catalysis and Decolourisation of Brilliant Reactive Red X-3B by Azoreductase from a Newly Isolated Pseudomonas Putida Wly. Biology and Environment, 2012, 112, 293-300.	0.3	3
45	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
46	Mixed finite element methods for incompressible flow: Stationary Stokes equations. Numerical Methods for Partial Differential Equations, 2010, 26, 957-978.	3.6	59
47	Pseudostressâ€“velocity formulation for incompressible Navierâ€“Stokes equations. International Journal for Numerical Methods in Fluids, 2010, 63, 341-356.	1.6	16
48	Recovery-Based Error Estimators for Interface Problems: Mixed and Nonconforming Finite Elements. SIAM Journal on Numerical Analysis, 2010, 48, 30-52.	2.3	45
49	Flux Recovery and A Posteriori Error Estimators: Conforming Elements for Scalar Elliptic Equations. SIAM Journal on Numerical Analysis, 2010, 48, 578-602.	2.3	33
50	Recovery-Based Error Estimator for Interface Problems: Conforming Linear Elements. SIAM Journal on Numerical Analysis, 2009, 47, 2132-2156.	2.3	66
51	An adaptive least squares mixed finite element method for the stress-displacement formulation of linear elasticity. Numerical Methods for Partial Differential Equations, 2005, 21, 132-148.	3.6	36
52	A mixed nonconforming finite element for linear elasticity. Numerical Methods for Partial Differential Equations, 2005, 21, 1043-1051.	3.6	16
53	A finite element method using singular functions for the Poisson equation: crack singularities. Numerical Linear Algebra With Applications, 2002, 9, 445-455.	1.6	2
54	A least-squares finite element approximation for the compressible Stokes equations. Numerical Methods for Partial Differential Equations, 2000, 16, 62-70.	3.6	8

#	Article	IF	Citations
55	A stable nonconforming quadrilateral finite element method for the stationary Stokes and Navier-Stokes equations. Calcolo, 1999, 36, 215-232.	1.1	80
56	Least-squares finite element approximations for the Reissner-Mindlin plate. Numerical Linear Algebra With Applications, 1999, 6, 479-496.	1.6	11
57	Convergence Estimates of Multilevel Additive and Multiplicative Algorithms for Non-symmetric and Indefinite Problems. Numerical Linear Algebra With Applications, 1996, 3, 205-220.	1.6	3