Hongxing Rui

List of Publications by Year
in descending order

118 papers	1,455 citations	430874 18 h-index	434195 31 g-index
119 all docs	119 docs citations	119 times ranked	542 citing authors

#	Article	IF	Citations
1	A low-order divergence-free H(div)-conforming finite element method for Stokes flows. IMA Journal of Numerical Analysis, 2022, 42, 3711-3734.	2.9	3
2	A reduced-order characteristic finite element method based on POD for optimal control problem governed by convectionâ€"diffusion equation. Computer Methods in Applied Mechanics and Engineering, 2022, 391, 114538.	6.6	3
3	A reduced-order Weak Galerkin finite element algorithm based on POD technique for parabolic problem on polytopal mesh. Applied Mathematics Letters, 2022, 127, 107842.	2.7	2
4	Characteristic methods for thermal convection problems with infinite Prandtl number on nonuniform staggered grids. Journal of Mathematical Analysis and Applications, 2022, 509, 125943.	1.0	0
5	A second-order space-time accurate scheme for Maxwellâ€™s equations in a Coleâ€"Cole dispersive medium. Engineering With Computers, 2022, 38, 5153-5172.	6.1	4
6	The locking-free finite difference method based on staggered grids for the coupled Stokesâ€"Biot problem. International Journal of Computer Mathematics, 2022, 99, 2042-2068.	1.8	2
7	Superconvergence of MAC Scheme for a Coupled Free Flow-Porous Media System with Heat Transport on Non-uniform Grids. Journal of Scientific Computing, 2022, 90, 1.	2.3	5
8	An efficient augmented approach algorithm for incompressible Stokes problems on staggered Cartesian grids. Applied Mathematics Letters, 2022, 128, 107957.	2.7	0
9	Modified marker and cell schemes for Stokes equations with Dirichlet boundary condition. Mathematical Methods in the Applied Sciences, 2022, 45, 10384-10407.	2.3	1
10	Galerkin method for the fully coupled quasi-static thermo-poroelastic problem. Computers and Mathematics With Applications, 2022, 118, 95-109.	2.7	2
11	A combined stabilized mixed finite element and discontinuous Galerkin method for coupled Stokes and Darcy flows with transport. Computers and Mathematics With Applications, 2022, 120, 92-104.	2.7	0
12	Numerical simulation for 2D/3D time fractional Maxwellâ€™s system based on a fast second-order FDTD algorithm. Journal of Computational and Applied Mathematics, 2022, 416, 114590.	2.0	4
13	A stabilized hybrid mixed finite element method for poroelasticity. Computational Geosciences, 2021, 25, 757-774.	2.4	13
14	An efficient FDTD algorithm for 2D/3D time fractional Maxwellâ€™s system. Applied Mathematics Letters, 2021, 116, 106992.	2.7	7
15	Numerical analysis of Finite-Difference Time-Domain method for 2D/3D Maxwell's equations in a Cole-Cole dispersive medium. Computers and Mathematics With Applications, 2021, 93, 230-252.	2.7	11
16	Numerical simulation for a incompressible miscible displacement problem using a reduced-order finite element method based on POD technique. Computational Geosciences, 2021, 25, 2093-2108.	2.4	6
17	A reduced-order finite element method based on POD for the incompressible miscible displacement problem. Computers and Mathematics With Applications, 2021, 98, 99-117.	2.7	7
18	Block-centered local refinement methods for the time-fractional equations. Chaos, Solitons and Fractals, 2021, 152, 111314.	5.1	2

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19	A fully conservative blockâ€centered finite difference method for Darcyâ€“Forchheimer incompressible miscible displacement problem. Numerical Methods for Partial Differential Equations, 2020, 36, 66-85.	3.6	8
20	Stability and convergence based on the finite difference method for the nonlinear fractional cable equation on non-uniform staggered grids. Applied Numerical Mathematics, 2020, 152, 403-421.	2.1	5
21	A Multipoint Flux Mixed Finite Element Method for Darcyâ€“Forchheimer Incompressible Miscible Displacement Problem. Journal of Scientific Computing, 2020, 82, 1.	2.3	4
22	A MAC Scheme for Coupled Stokesâ€“Darcy Equations on Non-uniform Grids. Journal of Scientific Computing, 2020, 82, 1.	2.3	8
23	Experimental Study on Kinetic Behaviors of Natural Gas Hydrate Production via Continuous Simulated Seawater Injection. Energy & Fuels, 2019, 33, 8222-8230.	5.1	9
24	A block-centered finite difference method for the nonlinear Sobolev equation on nonuniform rectangular grids. Applied Mathematics and Computation, 2019, 363, 124607.	2.2	3
25	Superconvergence of a fully conservative finite difference method on non-uniform staggered grids for simulating wormhole propagation with the Darcyâ€“Brinkmanâ€“Forchheimer framework. Journal of Fluid Mechanics, 2019, 872, 438-471.	3.4	12
26	The finite volume method based on the Crouzeixâ€“Raviart element for a fracture model. Numerical Methods for Partial Differential Equations, 2019, 35, 1904-1927.	3.6	4
27	High-order compact difference scheme of 1D nonlinear degenerate convectionâ€“reactionâ€“diffusion equation with adaptive algorithm. Numerical Heat Transfer, Part B: Fundamentals, 2019, 75, 43-66.	0.9	8
28	CO₂ Leakage Behaviors in Typical Caprockâ€“Aquifer System during Geological Storage Process. ACS Omega, 2019, 4, 17874-17879.	3.5	15
29	Stability and convergence of the mark and cell finite difference scheme for Darcyâ€Stokesâ€Brinkman equations on nonâ€uniform grids. Numerical Methods for Partial Differential Equations, 2019, 35, 509-527.	3.6	5
30	Stability and superconvergence of efficient MAC schemes for fractional Stokes equation on non-uniform grids. Applied Numerical Mathematics, 2019, 138, 30-53.	2.1	3
31	A coupling of hybrid mixed and continuous Galerkin finite element methods for poroelasticity. Applied Mathematics and Computation, 2019, 347, 767-784.	2.2	9
32	A fully conservative block-centered finite difference method for simulating Darcy-Forchheimer compressible wormhole propagation. Numerical Algorithms, 2019, 82, 451-478.	1.9	8
33	Stability and convergence of characteristic MAC scheme and post-processing for the Oseen equations on non-uniform grids. Applied Mathematics and Computation, 2019, 342, 94-111.	2.2	0
34	Two alternating direction implicit spectral methods for two-dimensional distributed-order differential equation. Numerical Algorithms, 2019, 82, 321-347.	1.9	11
35	A block-centred finite difference method for the distributed-order differential equation with Neumann boundary condition. International Journal of Computer Mathematics, 2019, 96, 622-639.	1.8	5
36	Leakage Mitigation During CO2 Geological Storage Process Using CO2 Triggered Gelation. Industrial & Engineering Chemistry Research, 2019, 58, 3395-3406.	3.7	14

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37	A node-centered finite volume method for a fracture model on triangulations. Applied Mathematics and Computation, 2018, 327, 55-69.	2.2	5
38	Two temporal second-order H1-Galerkin mixed finite element schemes for distributed-order fractional sub-diffusion equations. Numerical Algorithms, 2018, 79, 1107-1130.	1.9	6
39	MAC finite difference scheme for Stokes equations with damping on non-uniform grids. Computers and Mathematics With Applications, 2018, 75, 1272-1287.	2.7	5
40	A block-centered finite difference method for the distributed-order time-fractional diffusion-wave equation. Applied Numerical Mathematics, 2018, 131, 123-139.	2.1	10
41	Multigrid Methods for a Mixed Finite Element Method of the Darcyâ€"Forchheimer Model. Journal of Scientific Computing, 2018, 74, 396-411.	2.3	11
42	A twoâ€grid stabilized mixed finite element method for Darcyâ€Forchheimer model. Numerical Methods for Partial Differential Equations, 2018, 34, 686-704.	3.6	4
43	A high-order fully conservative block-centered finite difference method for the time-fractional advectionâ€"dispersion equation. Applied Numerical Mathematics, 2018, 124, 89-109.	2.1	10
44	A blockâ€centered finite difference method for fractional Cattaneo equation. Numerical Methods for Partial Differential Equations, 2018, 34, 296-316.	3.6	3
45	Block-Centered Finite Difference Method for Simulating Compressible Wormhole Propagation. Journal of Scientific Computing, 2018, 74, 1115-1145.	2.3	26
46	Superconvergence of Characteristics Marker and Cell Scheme for the Navier--Stokes Equations on Nonuniform Grids. SIAM Journal on Numerical Analysis, 2018, 56, 1313-1337.	2.3	11
47	Stability and superconvergence of MAC schemes for time dependent Stokes equations on nonuniform grids. Journal of Mathematical Analysis and Applications, 2018, 466, 1499-1524.	1.0	5
48	A two-grid decoupled algorithm for fracture models. Computers and Mathematics With Applications, 2018, 76, 1161-1173.	2.7	11
49	A locking-free finite difference method on staggered grids for linear elasticity problems. Computers and Mathematics With Applications, 2018, 76, 1301-1320.	2.7	13
50	Characteristic block-centred finite difference methods for nonlinear convection-dominated diffusion equation. International Journal of Computer Mathematics, 2017, 94, 386-404.	1.8	16
51	Cell-Centered Finite Difference Method for the One-Dimensional Forchheimer Laws. Bulletin of the Malaysian Mathematical Sciences Society, 2017, 40, 545-564.	0.9	3
52	A coupling of weak Galerkin and mixed finite element methods for poroelasticity. Computers and Mathematics With Applications, 2017, 73, 804-823.	2.7	24
53	A Two-Grid Block-Centered Finite Difference Method for the Nonlinear Time-Fractional Parabolic Equation. Journal of Scientific Computing, 2017, 72, 863-891.	2.3	34
54	Stability and Superconvergence of MAC Scheme for Stokes Equations on Nonuniform Grids. SIAM Journal on Numerical Analysis, 2017, 55, 1135-1158.	2.3	33

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55	Characteristic block-centered finite difference method for simulating incompressible wormhole propagation. Computers and Mathematics With Applications, 2017, 73, 2171-2190.	2.7	14
56	Block-centered finite difference methods for general Darcyâ€"Forchheimer problems. Applied Mathematics and Computation, 2017, 307, 124-140.	2.2	7
57	A stabilized Crouzeixâ€Raviart element method for coupling stokes and darcyâ€forchheimer flows. Numerical Methods for Partial Differential Equations, 2017, 33, 1070-1094.	3.6	4
58	A stabilized mixed finite element method for coupled Stokes and Darcy flows with transport. Computer Methods in Applied Mechanics and Engineering, 2017, 315, 169-189.	6.6	22
59	Characteristic block-centered finite difference method for compressible miscible displacement in porous media. Applied Mathematics and Computation, 2017, 314, 391-407.	2.2	5
60	A multipoint flux mixed finite element method for the compressible Darcyâ€"Forchheimer models. Applied Mathematics and Computation, 2017, 315, 259-277.	2.2	8
61	A Block-Centered Finite Difference Method for Slightly Compressible Darcyâ€"Forchheimer Flow in Porous Media. Journal of Scientific Computing, 2017, 73, 70-92.	2.3	15
62	A new MCCâ€"MFE method for compressible miscible displacement in porous media. Journal of Computational and Applied Mathematics, 2016, 302, 139-156.	2.0	10
63	A Priori Error Estimate of Splitting Positive Definite Mixed Finite Element Method for Parabolic Optimal Control Problems. Numerical Mathematics, 2016, 9, 215-238.	1.3	4
64	Trapezoidal Rule for Computing Supersingular Integral on a Circle. Journal of Scientific Computing, 2016, 66, 740-760.	2.3	3
65	A two-grid block-centered finite difference method for nonlinear non-Fickian flow model. Applied Mathematics and Computation, 2016, 281, 300-313.	2.2	18
66	A Stabilized Mixed Finite Element Method for Elliptic Optimal Control Problems. Journal of Scientific Computing, 2016, 66, 968-986.	2.3	3
67	A posteriori error estimates for optimal control problems constrained by convection-diffusion equations. Frontiers of Mathematics in China, 2016, 11, 55-75.	0.7	3
68	Uniformly Stable Explicitly Solvable Finite Difference Method for Fractional Diffusion Equations. East Asian Journal on Applied Mathematics, 2015, 5, 29-47.	0.9	4
69	Stabilized Crouzeix-Raviart element for Darcy-Forchheimer model. Numerical Methods for Partial Differential Equations, 2015, 31, 1568-1588.	3.6	5
70	A MCC finite element approximation of incompressible miscible displacement in porous media. Computers and Mathematics With Applications, 2015, 70, 750-764.	2.7	12
71	A block-centered finite difference method for Darcy-Forchheimer model with variable Forchheimer number. Numerical Methods for Partial Differential Equations, 2015, 31, 1603-1622.	3.6	26
72	A Two-Grid Block-Centered Finite Difference Method For Darcy--Forchheimer Flow in Porous Media. SIAM Journal on Numerical Analysis, 2015, 53, 1941-1962.	2.3	63

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73	Numerical simulation of the modified regularized long wave equation by split least-squares mixed finite element method. Mathematics and Computers in Simulation, 2015, 109, 64-73.	4.4	10
74	Finite volume element approximation of the coupled continuum pipeâ€flow/Darcy model for flows in karst aquifers. Numerical Methods for Partial Differential Equations, 2014, 30, 376-392.	3.6	10
75	A rectangular mixed element method with continuous flux approximation for coupling Stokes and Darcy flows. Applied Mathematics and Computation, 2014, 246, 39-53.	2.2	3
76	Closed-form solutions to the nonhomogeneous Yakubovich-transpose matrix equation. Journal of Computational and Applied Mathematics, 2014, 267, 72-81.	2.0	6
77	An approximation of incompressible miscible displacement in porous media by mixed finite elements and symmetric finite volume element method of characteristics. Numerical Methods for Partial Differential Equations, 2013, 29, 897-915.	3.6	4
78	Split leastâ€squares finite element methods for nonâ€Fickian flow in porous media. Numerical Methods for Partial Differential Equations, 2013, 29, 916-934.	3.6	4
79	Adaptive characteristic finite element approximation of convectionâ€"diffusion optimal control problems. Numerical Methods for Partial Differential Equations, 2013, 29, 979-998.	3.6	10
80	A two-grid algorithm for expanded mixed finite element approximations of semi-linear elliptic equations. Computers and Mathematics With Applications, 2013, 66, 392-402.	2.7	8
81	Block-centered finite difference methods for parabolic equation with time-dependent coefficient. Japan Journal of Industrial and Applied Mathematics, 2013, 30, 681-699.	0.9	35
82	A mixed element method for Darcyâ€"Forchheimer incompressible miscible displacement problem. Computer Methods in Applied Mechanics and Engineering, 2013, 264, 1-11.	6.6	22
83	Superconvergence of Hermite rule for hypersingular integrals on interval. International Journal of Computer Mathematics, 2013, 90, 1448-1458.	1.8	2
84	A Rectangular Mixed Finite Element Method with a Continuous Flux for an Elliptic Equation Modelling Darcy Flow. Abstract and Applied Analysis, 2013, 2013, 1-10.	0.7	0
85	Development and L2-Analysis of a Single-Step Characteristics Finite Difference Scheme of Second Order in Time for Convection-Diffusion Problems. Journal of Algorithms and Computational Technology, 2013, 7, 343-380.	0.7	8
86	A mass-conservative characteristic FE scheme for optimal control problems governed by convectionâ€"diffusion equations. Computer Methods in Applied Mechanics and Engineering, 2012, 241-244, 82-92.	6.6	4
87	A Block-Centered Finite Difference Method for the Darcy--Forchheimer Model. SIAM Journal on Numerical Analysis, 2012, 50, 2612-2631.	2.3	117
88	Mixed Element Method for Two-Dimensional Darcy-Forchheimer Model. Journal of Scientific Computing, 2012, 52, 563-587.	2.3	84
89	An optimal-order error estimate for the mass-conservative characteristic finite element scheme. Applied Mathematics and Computation, 2012, 218, 10271-10278.	2.2	2
90	A characteristic-mixed finite element method for time-dependent convectionâ€"diffusion optimal control problem. Applied Mathematics and Computation, 2011, 218, 3430-3440.	2.2	12

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91	Least-squares Galerkin procedure for second-order hyperbolic equations. Journal of Systems Science and Complexity, 2011, 24, 381-393.	2.8	4
92	A priorianda posteriorierror estimates for the method of lumped masses for parabolic optimal control problems. International Journal of Computer Mathematics, 2011, 88, 2798-2823.	1.8	6
93	A discontinuous Galerkin method combined with mixed finite element for seawater intrusion problem. Journal of Systems Science and Complexity, 2010, 23, 830-845.	2.8	4
94	A Mass-Conservative Characteristic Finite Element Scheme for Convection-Diffusion Problems. Journal of Scientific Computing, 2010, 43, 416-432.	2.3	45
95	A finite difference non-matching domain decomposition algorithm for the parabolic equation. International Journal of Computer Mathematics, 2010, 87, 2480-2492.	1.8	0
96	A Priori Error Estimates for Optimal Control Problems Governed by Transient Advection-Diffusion Equations. Journal of Scientific Computing, 2009, 38, 290-315.	2.3	42
97	The numerical simulation and analysis of three-dimensional seawater intrusion and protection projects in porous media. Science in China Series G: Physics, Mechanics and Astronomy, 2009, 52, 92-107.	0.2	5
98	A split least-squares characteristic mixed finite element method for Sobolev equations with convection term. Mathematics and Computers in Simulation, 2009, 80, 341-351.	4.4	16
99	A unified stabilized mixed finite element method for coupling Stokes and Darcy flows. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 2692-2699.	6.6	73
100	Split least-squares finite element methods for linear and nonlinear parabolic problems. Journal of Computational and Applied Mathematics, 2009, 223, 938-952.	2.0	21
101	A remark on least-squares Galerkin procedures for pseudohyperbolic equations. Journal of Computational and Applied Mathematics, 2009, 229, 108-119.	2.0	2
102	Convergence analysis of an upwind finite volume element method with Crouzeix-Raviart element for non-selfadjoint and indefinite problems. Frontiers of Mathematics in China, 2008, 3, 563-579.	0.7	5
103	A conservative characteristic finite volume element method for solution of the advectionâ€“diffusion equation. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 3862-3869.	6.6	20
104	A Finite Difference Domain Decomposition Algorithm with High Accuracy for the Parabolic Equations. , 2008, , .		0
105	Uniform convergence of finite volume element method with Crouzeixâ€“Raviart element for non-self-adjoint and indefinite elliptic problems. Journal of Computational and Applied Mathematics, 2007, 200, 555-565.	2.0	4
106	A remark on least-squares mixed element methods for reactionâ€“diffusion problems. Journal of Computational and Applied Mathematics, 2007, 202, 230-236.	2.0	17
107	Least-squares Galerkin procedures for pseudohyperbolic equations. Applied Mathematics and Computation, 2007, 189, 425-439.	2.2	11
108	Convergence of an upwind control-volume mixed finite element method for convectionâ€“diffusion problems. Computing (Vienna/New York), 2007, 81, 297-315.	4.8	3

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109	On the accuracy of the mortar finite volume element method with Lagrange multipliers. Applied Mathematics and Computation, 2006, 183, 1386-1398.	2.2	0
110	An expanded mixed covolume method for elliptic problems. Numerical Methods for Partial Differential Equations, 2005, 21, 8-23.	3.6	14
111	Analysis on a Finite Volume Element Method for Stokes Problems. Acta Mathematicae Applicatae Sinica, 2005, 21, 359-372.	0.7	7
112	A FINITE VOLUME ELEMENT METHOD FOR THERMAL CONVECTION PROBLEMS. Acta Mathematica Scientia, 2004, 24, 129-138.	1.0	3
113	Least-squares Galerkin procedures for parabolic integro-differential equations. Applied Mathematics and Computation, 2004, 150, 749-762.	2.2	8
114	Superconvergence of a Mixed Covolume Method for Elliptic Problems. Computing (Vienna/New York), 2003, 71, 247-263.	4.8	8
115	An Alternative Direction Iterative Method With Second-Order Upwind Scheme For Convection-Diffusion Equations. International Journal of Computer Mathematics, 2003, 80, 527-533.	1.8	3
116	Symmetric mixed covolume methods for parabolic problems. Numerical Methods for Partial Differential Equations, 2002, 18, 561-583.	3.6	23
117	A second order characteristic finite element scheme for convection-diffusion problems. Numerische Mathematik, 2002, 92, 161-177.	1.9	91
118	Symmetric modified finite volume element methods for self-adjoint elliptic and parabolic problems. Journal of Computational and Applied Mathematics, 2002, 146, 373-386.	2.0	20