

Mahboub Baccouch

List of Publications by Year in descending order

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55
papers

589
citations

687363

13
h-index

713466

21
g-index

56
all docs

56
docs citations

56
times ranked

150
citing authors

#	ARTICLE	IF	CITATIONS
1	A local discontinuous Galerkin method for the second-order wave equation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012, 209-212, 129-143.	6.6	50
2	The Discontinuous Galerkin Method for Two-Dimensional Hyperbolic Problems. Part I: Superconvergence Error Analysis. <i>Journal of Scientific Computing</i> , 2007, 33, 75-113.	2.3	44
3	Asymptotically exact a posteriori error estimates for a one-dimensional linear hyperbolic problem. <i>Applied Numerical Mathematics</i> , 2010, 60, 903-914.	2.1	41
4	The Discontinuous Galerkin Method for Two-dimensional Hyperbolic Problems Part II: A Posteriori Error Estimation. <i>Journal of Scientific Computing</i> , 2009, 38, 15-49.	2.3	40
5	A Superconvergent Local Discontinuous Galerkin Method for Elliptic Problems. <i>Journal of Scientific Computing</i> , 2012, 52, 113-152.	2.3	30
6	Discontinuous Galerkin error estimation for hyperbolic problems on unstructured triangular meshes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011, 200, 162-177.	6.6	29
7	A superconvergent local discontinuous Galerkin method for the second-order wave equation on Cartesian grids. <i>Computers and Mathematics With Applications</i> , 2014, 68, 1250-1278.	2.7	26
8	Analysis of a posteriori error estimates of the discontinuous Galerkin method for nonlinear ordinary differential equations. <i>Applied Numerical Mathematics</i> , 2016, 106, 129-153.	2.1	21
9	Asymptotically exact a posteriori LDG error estimates for one-dimensional transient convection-diffusion problems. <i>Applied Mathematics and Computation</i> , 2014, 226, 455-483.	2.2	20
10	The Local Discontinuous Galerkin Method for the Fourth-Order Euler-Bernoulli Partial Differential Equation in One Space Dimension. Part I: Superconvergence Error Analysis. <i>Journal of Scientific Computing</i> , 2014, 59, 795-840.	2.3	20
11	The Local Discontinuous Galerkin Method for the Fourth-Order Euler-Bernoulli Partial Differential Equation in One Space Dimension. Part II: A Posteriori Error Estimation. <i>Journal of Scientific Computing</i> , 2014, 60, 1-34.	2.3	18
12	A high-order space-time ultra-weak discontinuous Galerkin method for the second-order wave equation in one space dimension. <i>Journal of Computational and Applied Mathematics</i> , 2021, 389, 113331.	2.0	15
13	Superconvergence of the local discontinuous galerkin method applied to the one-dimensional second-order wave equation. <i>Numerical Methods for Partial Differential Equations</i> , 2014, 30, 862-901.	3.6	14
14	A posteriori error estimates for a discontinuous Galerkin method applied to one-dimensional nonlinear scalar conservation laws. <i>Applied Numerical Mathematics</i> , 2014, 84, 1-21.	2.1	14
15	A Posteriori Local Discontinuous Galerkin Error Estimation for Two-Dimensional Convection-Diffusion Problems. <i>Journal of Scientific Computing</i> , 2015, 62, 399-430.	2.3	14
16	Superconvergence and a posteriori error estimates for the LDG method for convection-diffusion problems in one space dimension. <i>Computers and Mathematics With Applications</i> , 2014, 67, 1130-1153.	2.7	13
17	Superconvergence of the discontinuous Galerkin method for nonlinear second-order initial-value problems for ordinary differential equations. <i>Applied Numerical Mathematics</i> , 2017, 115, 160-179.	2.1	11
18	A high-order discontinuous Galerkin method for Itô stochastic ordinary differential equations. <i>Journal of Computational and Applied Mathematics</i> , 2016, 308, 138-165.	2.0	10

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19	Asymptotically exact a posteriori local discontinuous Galerkin error estimates for the one-dimensional second-order wave equation. <i>Numerical Methods for Partial Differential Equations</i> , 2015, 31, 1461-1491.	3.6	9
20	Optimal energy-conserving local discontinuous Galerkin method for the one-dimensional sine-Gordon equation. <i>International Journal of Computer Mathematics</i> , 2017, 94, 316-344.	1.8	9
21	A superconvergent local discontinuous Galerkin method for nonlinear two-point boundary-value problems. <i>Numerical Algorithms</i> , 2018, 79, 697-718.	1.9	9
22	An iterative finite difference method for approximating the two-branched solution of Bratu's problem. <i>Applied Numerical Mathematics</i> , 2019, 139, 62-76.	2.1	9
23	Superconvergence of the local discontinuous Galerkin method for the sine-Gordon equation on Cartesian grids. <i>Applied Numerical Mathematics</i> , 2017, 113, 124-155.	2.1	8
24	Superconvergence of the local discontinuous Galerkin method for the sine-Gordon equation in one space dimension. <i>Journal of Computational and Applied Mathematics</i> , 2018, 333, 292-313.	2.0	8
25	A Posteriori Error Analysis of the Discontinuous Galerkin Method for Two-Dimensional Linear Hyperbolic Conservation Laws on Cartesian Grids. <i>Journal of Scientific Computing</i> , 2016, 68, 945-974.	2.3	7
26	A posteriori error estimates and adaptivity for the discontinuous Galerkin solutions of nonlinear second-order initial-value problems. <i>Applied Numerical Mathematics</i> , 2017, 121, 18-37.	2.1	7
27	Superconvergence and a posteriori error estimates of the DG method for scalar hyperbolic problems on Cartesian grids. <i>Applied Mathematics and Computation</i> , 2015, 265, 144-162.	2.2	6
28	A posteriori error estimator based on derivative recovery for the discontinuous Galerkin method for nonlinear hyperbolic conservation laws on Cartesian grids. <i>Numerical Methods for Partial Differential Equations</i> , 2017, 33, 1224-1265.	3.6	6
29	A Superconvergent Local Discontinuous Galerkin Method for Nonlinear Fourth-Order Boundary-Value Problems. <i>International Journal of Computational Methods</i> , 2020, 17, 1950035.	1.3	6
30	A discontinuous Galerkin method for systems of stochastic differential equations with applications to population biology, finance, and physics. <i>Journal of Computational and Applied Mathematics</i> , 2021, 388, 113297.	2.0	6
31	A Recovery-Based Error Estimator for the Discontinuous Galerkin Method for Transient Linear Hyperbolic Conservation Laws on Cartesian Grids. <i>International Journal of Computational Methods</i> , 2017, 14, 1750062.	1.3	5
32	Analysis of optimal superconvergence of a local discontinuous Galerkin method for nonlinear second-order two-point boundary-value problems. <i>Applied Numerical Mathematics</i> , 2019, 145, 361-383.	2.1	5
33	Efficient Chebyshev Pseudospectral Methods for Viscous Burgers's Equations in One and Two Space Dimensions. <i>International Journal of Applied and Computational Mathematics</i> , 2019, 5, 1.	1.6	5
34	A two-branched numerical solution of the two-dimensional Bratu's problem. <i>Applied Numerical Mathematics</i> , 2020, 153, 202-216.	2.1	5
35	Optimal a Posteriori Error Estimates of the Local Discontinuous Galerkin Method for Convection-Diffusion Problems in One Space Dimension. <i>Journal of Computational Mathematics</i> , 2016, 34, 511-531.	0.4	5
36	Recovery-Based Error Estimator for the Discontinuous Galerkin Method for Nonlinear Scalar Conservation Laws in One Space Dimension. <i>Journal of Scientific Computing</i> , 2016, 66, 459-476.	2.3	4

#	ARTICLE	IF	CITATIONS
37	A Family of High Order Numerical Methods for Solving Nonlinear Algebraic Equations with Simple and Multiple Roots. International Journal of Applied and Computational Mathematics, 2017, 3, 1119-1133.	1.6	4
38	A posteriori local discontinuous Galerkin error estimates for the one-dimensional sine-Gordon equation. International Journal of Computer Mathematics, 2018, 95, 815-844.	1.8	4
39	Optimal error estimates and superconvergence of an ultra weak discontinuous Galerkin method for fourth-order boundary-value problems. Applied Numerical Mathematics, 2019, 137, 91-115.	2.1	4
40	Asymptotically Exact Posteriori Error Estimates for the Local Discontinuous Galerkin Method Applied to Nonlinear Convection-Diffusion Problems. Journal of Scientific Computing, 2018, 76, 1868-1904.	2.3	3
41	An adaptive local discontinuous Galerkin method for nonlinear two-point boundary-value problems. Numerical Algorithms, 2020, 84, 1121-1153.	1.9	3
42	Analysis of optimal superconvergence of the local discontinuous Galerkin method for nonlinear fourth-order boundary value problems. Numerical Algorithms, 2021, 86, 1615-1650.	1.9	3
43	Optimal superconvergence and asymptotically exact a posteriori error estimator for the local discontinuous Galerkin method for linear elliptic problems on Cartesian grids. Applied Numerical Mathematics, 2021, 162, 201-224.	2.1	3
44	A stochastic local discontinuous Galerkin method for stochastic two-point boundary-value problems driven by additive noises. Applied Numerical Mathematics, 2018, 128, 43-64.	2.1	2
45	A Family of High Order Derivative-Free Iterative Methods for Solving Root-Finding Problems. International Journal of Applied and Computational Mathematics, 2019, 5, 1.	1.6	2
46	The discontinuous Galerkin method for stochastic differential equations driven by additive noises. Applied Numerical Mathematics, 2020, 152, 285-309.	2.1	2
47	Superconvergence of the semi-discrete local discontinuous Galerkin method for nonlinear KdV-type problems. Discrete and Continuous Dynamical Systems - Series B, 2019, 24, 19-54.	0.9	2
48	The Discontinuous Galerkin Finite Element Method for Ordinary Differential Equations. , 0, , .		1
49	Optimal error estimates of the local discontinuous Galerkin method for nonlinear second-order elliptic problems on Cartesian grids. Numerical Methods for Partial Differential Equations, 2021, 37, 505-532.	3.6	1
50	A posteriori error analysis of the local discontinuous Galerkin method for the sine-Gordon equation in one space dimension. Journal of Computational and Applied Mathematics, 2020, 366, 112432.	2.0	0
51	A Brief Summary of the Finite Element Method for Differential Equations. , 0, , .		0
52	The discontinuous Galerkin method for general nonlinear third-order ordinary differential equations. Applied Numerical Mathematics, 2021, 162, 331-350.	2.1	0
53	Two Efficient and Reliable a posteriori Error Estimates for the Local Discontinuous Galerkin Method Applied to Linear Elliptic Problems on Cartesian Grids. Journal of Scientific Computing, 2021, 87, 1.	2.3	0
54	Convergence and Superconvergence of the Local Discontinuous Galerkin Method for Semilinear Second-Order Elliptic Problems on Cartesian Grids. Communications on Applied Mathematics and Computation, 0, , 1.	1.7	0

#	ARTICLE	IF	CITATIONS
55	Galerkin methods. Scholarpedia Journal, 2010, 5, 10056.	0.3	0