Yan Xu

List of Publications by Year
in descending order

67	1,500	394421	330143
papers	citations	19 h-index	37 g-index

67	67	67	673
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Negative Norm Estimates for Arbitrary Lagrangian-Eulerian Discontinuous Galerkin Method for Nonlinear Hyperbolic Equations. Communications on Applied Mathematics and Computation, 2022, 4, 250-270.	1.7	2
2	Asymptotically compatible approximations of linear nonlocal conservation laws with variable horizon. Numerical Methods for Partial Differential Equations, 2022, 38, 1948-1966.	3.6	2
3	High Order Finite Difference WENO Methods with Unequal-Sized Sub-Stencils for the Degasperis-Procesi Type Equations. Communications in Computational Physics, 2022, 31, 913-946.	1.7	3
4	High-Order Positivity-Preserving Well-Balanced Discontinuous Galerkin Methods for Euler Equations with Gravitation on Unstructured Meshes. Communications in Computational Physics, 2022, 31, 771-815.	1.7	6
5	Adaptive local discontinuous Galerkin methods with semi-implicit time discretizations for the Navier-Stokes equations. Advances in Aerodynamics, 2022, 4, .	2.5	1
6	A discontinuous Galerkin method and its error estimate for nonlinear fourth-order wave equations. Journal of Computational and Applied Mathematics, 2021, 386, 113230.	2.0	7
7	Local Discontinuous Galerkin Methods to a Dispersive System of KdV-Type Equations. Journal of Scientific Computing, 2021, 86, 1.	2.3	2
8	Error Analysis of an Unconditionally Energy Stable Local Discontinuous Galerkin Scheme for the Cahnâ€“Hilliard Equation with Concentration-Dependent Mobility. Computational Methods in Applied Mathematics, 2021, .	0.8	2
9	Positivity-Preserving Well-Balanced Arbitrary Lagrangianâ€“Eulerian Discontinuous Galerkin Methods for the Shallow Water Equations. Journal of Scientific Computing, 2021, 88, 1.	2.3	10
10	Stability analysis and error estimates of local discontinuous Galerkin methods with semi-implicit spectral deferred correction time-marching for the Allenâ€“Cahn equation. Journal of Computational and Applied Mathematics, 2020, 376, 112857.	2.0	7
11	High Order Numerical Simulations for the Binary Fluid--Surfactant System Using the Discontinuous Galerkin and Spectral Deferred Correction Methods. SIAM Journal of Scientific Computing, 2020, 42, B353-B378.	2.8	3
12	An ultraweak-local discontinuous Galerkin method for PDEs with high order spatial derivatives. Mathematics of Computation, 2020, 89, 2753-2783.	2.1	13
13	Positivity Preserving Limiters for Time-Implicit Higher Order Accurate Discontinuous Galerkin Discretizations. SIAM Journal of Scientific Computing, 2019, 41, A2037-A2063.	2.8	12
14	Local Discontinuous Galerkin Methods for the $$mu $$ Î¼ -Camassaâ€“Holm and $$mu $$ Î¼ -Degasperisâ€“Procesi Equations. Journal of Scientific Computing, 2019, 79, 1294-1334.	2.3	7
15	Superconvergence of Arbitrary Lagrangian--Eulerian Discontinuous Galerkin Methods for Linear Hyperbolic Equations. SIAM Journal on Numerical Analysis, 2019, 57, 2142-2165.	2.3	5
16	Discontinuous Galerkin Methods with Optimal $$L^2$$ Accuracy for One Dimensional Linear PDEs with High Order Spatial Derivatives. Journal of Scientific Computing, 2019, 78, 816-863.	2.3	9
17	Efficient, Accurate and Energy Stable Discontinuous Galerkin Methods for Phase Field Models of Two-Phase Incompressible Flows. Communications in Computational Physics, 2019, 26, 1224-1248.	1.7	2
18	Stability Analysis and Error Estimates of Semi-implicit Spectral Deferred Correction Coupled with Local Discontinuous Galerkin Method for Linear Convectionâ€“Diffusion Equations. Journal of Scientific Computing, 2018, 77, 1001-1029.	2.3	8

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19	Spectral approximation for polynomial eigenvalue problems. Computers and Mathematics With Applications, 2018, 76, 1184-1197.	2.7	1
20	Local Discontinuous Galerkin Methods for the Two-Dimensional Camassaâ€“Holm Equation. Communications in Mathematics and Statistics, 2018, 6, 359-388.	1.5	1
21	Globally Divergence-Free Discontinuous Galerkin Methods for Ideal Magnetohydrodynamic Equations. Journal of Scientific Computing, 2018, 77, 1621-1659.	2.3	15
22	A High Order Adaptive Time-Stepping Strategy and Local Discontinuous Galerkin Method for the Modified Phase Field Crystal Equation. Communications in Computational Physics, 2018, 24, .	1.7	15
23	Superconvergence of Local Discontinuous Galerkin Method for One-Dimensional Linear SchrÃ¶dinger Equations. Journal of Scientific Computing, 2017, 73, 1290-1315.	2.3	7
24	Discontinuous Galerkin Approximations for Computing Electromagnetic Bloch Modes in Photonic Crystals. Journal of Scientific Computing, 2017, 70, 922-964.	2.3	7
25	Semi-implicit spectral deferred correction methods for highly nonlinear partial differential equations. Journal of Computational Physics, 2017, 338, 269-284.	3.8	21
26	Discontinuous Galerkin Based Isogeometric Analysis for Geometric Flows and Applications in Geometric Modeling. Journal of Scientific Computing, 2017, 71, 525-546.	2.3	0
27	Weighted essentially non-oscillatory schemes for Degasperisâ€“Procesi equation with discontinuous solutions. Annals of Mathematical Sciences and Applications, 2017, 2, 319-340.	0.4	4
28	Local Discontinuous Galerkin Method and High Order Semi-Implicit Scheme for the Phase Field Crystal Equation. SIAM Journal of Scientific Computing, 2016, 38, A105-A127.	2.8	33
29	An h-adaptive local discontinuous Galerkin method for the Navierâ€“Stokesâ€“Korteweg equations. Journal of Computational Physics, 2016, 319, 242-265.	3.8	16
30	Efficient High Order Semi-implicit Time Discretization and Local Discontinuous Galerkin Methods for Highly Nonlinear PDEs. Journal of Scientific Computing, 2016, 68, 1029-1054.	2.3	12
31	High Order Local Discontinuous Galerkin Methods for the Allen-Cahn Equation: Analysis and Simulation. Journal of Computational Mathematics, 2016, 34, 135-158.	0.4	24
32	Interior Penalty Discontinuous Galerkin Based Isogeometric Analysis for Allen-Cahn Equations on Surfaces. Communications in Computational Physics, 2015, 18, 1380-1416.	1.7	5
33	A PDE-Based Regularization Algorithm Toward Reducing Speckle Tracking Noise. Ultrasonic Imaging, 2015, 37, 277-293.	2.6	16
34	Energy Conserving Local Discontinuous Galerkin Methods for the Nonlinear SchrÃ¶dinger Equation with Wave Operator. Journal of Scientific Computing, 2015, 65, 622-647.	2.3	37
35	Local Discontinuous Galerkin Methods for the Functionalized Cahnâ€“Hilliard Equation. Journal of Scientific Computing, 2015, 63, 913-937.	2.3	14
36	A local discontinuous Galerkin method for the (non)-isothermal Navierâ€“Stokesâ€“Korteweg equations. Journal of Computational Physics, 2015, 295, 685-714.	3.8	19

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37	Fast Solver for the Local Discontinuous Galerkin Discretization of the KdV Type Equations. Communications in Computational Physics, 2015, 17, 424-457.	1.7	2
38	An efficient, unconditionally energy stable local discontinuous Galerkin scheme for the Cahnâ€“Hilliardâ€“Brinkman system. Journal of Computational Physics, 2015, 298, 387-405.	3.8	5
39	A Local Discontinuous Galerkin Method for the Propagation of Phase Transition in Solids and Fluids. Journal of Scientific Computing, 2014, 59, 688.	2.3	2
40	Discontinuous Galerkin Methods for Isogeometric Analysis for Elliptic Equations on Surfaces. Communications in Mathematics and Statistics, 2014, 2, 431-461.	1.5	14
41	An efficient fully-discrete local discontinuous Galerkin method for the Cahnâ€“Hilliardâ€“Heleâ€“Shaw system. Journal of Computational Physics, 2014, 264, 23-40.	3.8	30
42	A dissipation-rate reserving DG method for wave catching-up phenomena in a nonlinearly elastic composite bar. Journal of Computational Physics, 2014, 258, 405-430.	3.8	2
43	Efficient Solvers of Discontinuous Galerkin Discretization for the Cahnâ€“Hilliard Equations. Journal of Scientific Computing, 2014, 58, 380-408.	2.3	25
44	Local Discontinuous Galerkin Methods for the 2D Simulation of Quantum Transport Phenomena on Quantum Directional Coupler. Communications in Computational Physics, 2014, 15, 1012-1028.	1.7	4
45	A Conservative Local Discontinuous Galerkin Method for the SchrÃ¶dinger-KdV System. Communications in Computational Physics, 2014, 15, 1091-1107.	1.7	6
46	Local Discontinuous Galerkin Method for the Impact-Induced Wave in a Slender Cylinder Composed of a Non-Convex Elastic Material. Communications in Mathematics and Statistics, 2013, 1, 393-415.	1.5	1
47	Negative-Order Norm Estimates for Nonlinear Hyperbolic Conservation Laws. Journal of Scientific Computing, 2013, 54, 531-548.	2.3	20
48	Optimal Error Estimates of the Semidiscrete Local Discontinuous Galerkin Methods for High Order Wave Equations. SIAM Journal on Numerical Analysis, 2012, 50, 79-104.	2.3	78
49	Accuracy-enhancement of discontinuous Galerkin solutions for convection-diffusion equations in multiple-dimensions. Mathematics of Computation, 2012, 81, 1929-1950.	2.1	38
50	Optimal Error Estimates of the Local Discontinuous Galerkin Method for Surface Diffusion of Graphs on Cartesian Meshes. Journal of Scientific Computing, 2012, 51, 1-27.	2.3	3
51	Investigation of multi-soliton, multi-cuspon solutions to the Camassa-Holm equation and their interaction. Chinese Annals of Mathematics Series B, 2012, 33, 225-246.	0.4	2
52	Local Discontinuous Galerkin Methods for the Degasperis-Procesi Equation. Communications in Computational Physics, 2011, 10, 474-508.	1.7	20
53	Local Discontinuous Galerkin Methods for the Degasperis-Procesi Equation. Communications in Computational Physics, 2011, 10, 474-508.	1.7	22
54	Local discontinuous Galerkin methods for the generalized Zakharov system. Journal of Computational Physics, 2010, 229, 1238-1259.	3.8	35

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55	Dissipative Numerical Methods For the Hunter-Saxton Equation. Journal of Computational Mathematics, 2010, 28, .	0.4	7
56	Local Discontinuous Galerkin Method for Surface Diffusion and Willmore Flow of Graphs. Journal of Scientific Computing, 2009, 40, 375-390.	2.3	20
57	Local Discontinuous Galerkin Method for the Hunterâ€“Saxton Equation and Its Zero-Viscosity and Zero-Dispersion Limits. SIAM Journal of Scientific Computing, 2009, 31, 1249-1268.	2.8	14
58	Discontinuous Hamiltonian Finite Element Method forÂLinear HyperbolicÂSystems. Journal of Scientific Computing, 2008, 35, 241-265.	2.3	12
59	A Local Discontinuous Galerkin Method for the Camassaâ€“Holm Equation. SIAM Journal on Numerical Analysis, 2008, 46, 1998-2021.	2.3	122
60	Error estimates of the semi-discrete local discontinuous Galerkin method for nonlinear convectionâ€“diffusion and KdV equations. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 3805-3822.	6.6	96
61	Spaceâ€“time discontinuous Galerkin method for nonlinear water waves. Journal of Computational Physics, 2007, 224, 17-39.	3.8	19
62	Local discontinuous Galerkin methods for the Cahnâ€“Hilliard type equations. Journal of Computational Physics, 2007, 227, 472-491.	3.8	116
63	Efficient time discretization for local discontinuous Galerkin methods. Discrete and Continuous Dynamical Systems - Series B, 2007, 8, 677-693.	0.9	49
64	Local discontinuous Galerkin methods for the Kuramotoâ€“Sivashinsky equations and the Ito-type coupled KdV equations. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 3430-3447.	6.6	109
65	Local discontinuous Galerkin methods for two classes of two-dimensional nonlinear wave equations. Physica D: Nonlinear Phenomena, 2005, 208, 21-58.	2.8	78
66	Local discontinuous Galerkin methods for nonlinear SchrÃ¶dinger equations. Journal of Computational Physics, 2005, 205, 72-97.	3.8	201
67	Preface to Focused Issue on Discontinuous Galerkin Methods. Communications on Applied Mathematics and Computation, 0, , 1.	1.7	0