

# Hong Luo

## List of Publications by Year in descending order

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109  
papers

2,905  
citations

201385

27  
h-index

189595

50  
g-index

111  
all docs

111  
docs citations

111  
times ranked

1232  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Hermite WENO-based limiter for discontinuous Galerkin method on unstructured grids. Journal of Computational Physics, 2007, 225, 686-713.	1.9	477
2	A Fast, Matrix-free Implicit Method for Compressible Flows on Unstructured Grids. Journal of Computational Physics, 1998, 146, 664-690.	1.9	266
3	A discontinuous Galerkin method based on a Taylor basis for the compressible flows on arbitrary grids. Journal of Computational Physics, 2008, 227, 8875-8893.	1.9	208
4	A p-multigrid discontinuous Galerkin method for the Euler equations on unstructured grids. Journal of Computational Physics, 2006, 211, 767-783.	1.9	167
5	A reconstructed discontinuous Galerkin method for the compressible Navier-Stokes equations on arbitrary grids. Journal of Computational Physics, 2010, 229, 6961-6978.	1.9	154
6	On the computation of multi-material flows using ALE formulation. Journal of Computational Physics, 2004, 194, 304-328.	1.9	152
7	A reconstructed discontinuous Galerkin method based on a Hierarchical WENO reconstruction for compressible flows on tetrahedral grids. Journal of Computational Physics, 2013, 236, 477-492.	1.9	94
8	An accurate, fast, matrix-free implicit method for computing unsteady flows on unstructured grids. Computers and Fluids, 2001, 30, 137-159.	1.3	88
9	Fast p-Multigrid Discontinuous Galerkin Method for Compressible Flows at All Speeds. AIAA Journal, 2008, 46, 635-652.	1.5	75
10	On the computation of steady-state compressible flows using a discontinuous Galerkin method. International Journal for Numerical Methods in Engineering, 2008, 73, 597-623.	1.5	71
11	A Hermite WENO reconstruction-based discontinuous Galerkin method for the Euler equations on tetrahedral grids. Journal of Computational Physics, 2012, 231, 5489-5503.	1.9	69
12	A hybrid Cartesian grid and gridless method for compressible flows. Journal of Computational Physics, 2006, 214, 618-632.	1.9	53
13	A Parallel, Reconstructed Discontinuous Galerkin Method for the Compressible Flows on Arbitrary Grids. Communications in Computational Physics, 2011, 9, 363-389.	0.7	53
14	The multi-dimensional limiters for solving hyperbolic conservation laws on unstructured grids. Journal of Computational Physics, 2011, 230, 7775-7795.	1.9	52
15	A reconstructed discontinuous Galerkin method for the compressible Navier-Stokes equations on three-dimensional hybrid grids. Computers and Fluids, 2017, 152, 217-230.	1.3	42
16	The numerical simulation of strongly unsteady flow with hundreds of moving bodies. International Journal for Numerical Methods in Fluids, 1999, 31, 113-120.	0.9	40
17	A Reconstructed Discontinuous Galerkin Method for the Euler Equations on Arbitrary Grids. Communications in Computational Physics, 2012, 12, 1495-1519.	0.7	40
18	A set of parallel, implicit methods for a reconstructed discontinuous Galerkin method for compressible flows on 3D hybrid grids. Computers and Fluids, 2014, 98, 134-151.	1.3	40

#	ARTICLE	IF	CITATIONS
19	A direct discontinuous Galerkin method for the compressible Navier–Stokes equations on arbitrary grids. <i>Journal of Computational Physics</i> , 2016, 327, 484-502.	1.9	36
20	An implicit discontinuous Galerkin method for the unsteady compressible Navier–Stokes equations. <i>Computers and Fluids</i> , 2012, 53, 133-144.	1.3	34
21	High-Reynolds Number Viscous Flow Computations Using an Unstructured-Grid Method. <i>Journal of Aircraft</i> , 2005, 42, 483-492.	1.7	30
22	An implicit Hermite WENO reconstruction-based discontinuous Galerkin method on tetrahedral grids. <i>Computers and Fluids</i> , 2014, 96, 406-421.	1.3	30
23	A hybrid reconstructed discontinuous Galerkin method for compressible flows on arbitrary grids. <i>Computers and Fluids</i> , 2016, 139, 68-79.	1.3	30
24	A Parallel, High-Order Direct Discontinuous Galerkin Method for the Navier-Stokes Equations on 3D Hybrid Grids. <i>Communications in Computational Physics</i> , 2017, 21, 1231-1257.	0.7	30
25	A robust and efficient finite volume method for compressible inviscid and viscous two-phase flows. <i>Journal of Computational Physics</i> , 2018, 371, 67-91.	1.9	29
26	A Comparative Study of Rosenbrock-Type and Implicit Runge-Kutta Time Integration for Discontinuous Galerkin Method for Unsteady 3D Compressible Navier-Stokes equations. <i>Communications in Computational Physics</i> , 2016, 20, 1016-1044.	0.7	28
27	Fully-implicit orthogonal reconstructed Discontinuous Galerkin method for fluid dynamics with phase change. <i>Journal of Computational Physics</i> , 2016, 305, 964-996.	1.9	28
28	Reconstructed discontinuous Galerkin methods for linear advection–diffusion equations based on first-order hyperbolic system. <i>Journal of Computational Physics</i> , 2018, 369, 103-124.	1.9	23
29	A third-order implicit discontinuous Galerkin method based on a Hermite WENO reconstruction for time-accurate solution of the compressible Navier–Stokes equations. <i>International Journal for Numerical Methods in Fluids</i> , 2015, 79, 416-435.	0.9	22
30	OpenACC acceleration of an unstructured CFD solver based on a reconstructed discontinuous Galerkin method for compressible flows. <i>International Journal for Numerical Methods in Fluids</i> , 2015, 78, 123-139.	0.9	21
31	A Fast, Matrix-free Implicit Method for Computing Low Mach Number Flows on Unstructured Grids. <i>International Journal of Computational Fluid Dynamics</i> , 2000, 14, 133-157.	0.5	19
32	Reconstructed discontinuous Galerkin methods for compressible flows based on a new hyperbolic Navier-Stokes system. <i>Journal of Computational Physics</i> , 2021, 427, 110058.	1.9	19
33	A hybrid reconstructed discontinuous Galerkin and continuous Galerkin finite element method for incompressible flows on unstructured grids. <i>Journal of Computational Physics</i> , 2016, 322, 491-510.	1.9	18
34	Robust Implicit Direct Discontinuous Galerkin Method for Simulating the Compressible Turbulent Flows. <i>AIAA Journal</i> , 2019, 57, 1113-1132.	1.5	18
35	A Comparative Study of Different Reconstruction Schemes for a Reconstructed Discontinuous Galerkin Method on Arbitrary Grids. , 2011, , .		16
36	Development and Assessment of a Reconstructed Discontinuous Galerkin Method for the Compressible Turbulent Flows on Hybrid Grids. , 2016, , .		16

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37	A reconstructed discontinuous Galerkin method for compressible flows on moving curved grids. <i>Advances in Aerodynamics</i> , 2021, 3, .	1.3	16
38	A Discontinuous Galerkin Method Based on Variational Reconstruction for Compressible Flows on Arbitrary Grids. , 2018, , .		15
39	Cell-centered high-order hyperbolic finite volume method for diffusion equation on unstructured grids. <i>Journal of Computational Physics</i> , 2018, 355, 464-491.	1.9	15
40	Improvements in speed for explicit, transient compressible flow solvers. <i>International Journal for Numerical Methods in Fluids</i> , 2008, 56, 2229-2244.	0.9	14
41	An enhanced AUSM $^{+}$ -up scheme for high-speed compressible two-phase flows on hybrid grids. <i>Shock Waves</i> , 2019, 29, 629-649.	1.0	14
42	A Reconstructed Discontinuous Galerkin Method for the Compressible Navier-Stokes Equations on Arbitrary Grids. , 2010, , .		12
43	A reconstructed discontinuous Galerkin method for compressible turbulent flows on 3D curved grids. <i>Computers and Fluids</i> , 2018, 160, 26-41.	1.3	12
44	An updated Lagrangian discontinuous Galerkin hydrodynamic method for gas dynamics. <i>Computers and Mathematics With Applications</i> , 2019, 78, 258-273.	1.4	12
45	A hybrid building-block and gridless method for compressible flows. <i>International Journal for Numerical Methods in Fluids</i> , 2009, 59, 459-474.	0.9	9
46	A Reconstructed Discontinuous Galerkin Method for the Compressible Euler Equations on Arbitrary Grids. , 2009, , .		9
47	OpenACC-based GPU Acceleration of a 3-D Unstructured Discontinuous Galerkin Method. , 2014, , .		9
48	A reconstructed direct discontinuous Galerkin method for simulating the compressible laminar and turbulent flows on hybrid grids. <i>Computers and Fluids</i> , 2018, 168, 216-231.	1.3	8
49	A reconstructed discontinuous Galerkin method for compressible flows in Lagrangian formulation. <i>Computers and Fluids</i> , 2020, 202, 104522.	1.3	8
50	An Arbitrary Lagrangian-Eulerian Reconstructed Discontinuous Galerkin method for Compressible Multiphase flows. , 2016, , .		7
51	A hybrid incremental projection method for thermal-hydraulics applications. <i>Journal of Computational Physics</i> , 2016, 317, 382-404.	1.9	7
52	OpenACC-based GPU Acceleration of a $p$ -multigrid Discontinuous Galerkin Method for Compressible Flows on 3D Unstructured Grids. , 2015, , .		6
53	A fast, implicit discontinuous Galerkin method based on analytical Jacobians for the compressible Navier-Stokes equations. , 2016, , .		6
54	OpenACC directive-based GPU acceleration of an implicit reconstructed discontinuous Galerkin method for compressible flows on 3D unstructured grids. , 2016, , .		6

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55	A Compact High Order Finite Volume Method Based on Variational Reconstruction for Compressible Flows on Arbitrary Grids. , 2017, , .		6
56	First-Order Hyperbolic System Based Reconstructed Discontinuous Galerkin Methods for Nonlinear Diffusion Equations on Unstructured Grids. , 2018, , .		6
57	A moving discontinuous Galerkin finite element method with interface condition enforcement for compressible flows. Journal of Computational Physics, 2021, 445, 110618.	1.9	6
58	A vertex-centered finite volume method with interface sharpening technique for compressible two-phase flows. Journal of Computational Physics, 2022, 460, 111194.	1.9	6
59	A Parallel Reconstructed Discontinuous Galerkin Method for Compressible Flows on Arbitrary Grids. , 2010, , .		5
60	A class of Reconstructed Discontinuous Galerkin Methods for Compressible Flows on Arbitrary Grids. , 2011, , .		5
61	A Parallel, Implicit Reconstructed Discontinuous Galerkin Method for the Compressible Flows on 3D Arbitrary Grids. , 2013, , .		5
62	An Implicit Reconstructed Discontinuous Galerkin Method Based on Automatic Differentiation for the Navier-Stokes Equations on Tetrahedron Grids. , 2013, , .		5
63	Application of nonlinear Krylov acceleration to a reconstructed discontinuous Galerkin method for compressible flows. Computers and Fluids, 2018, 163, 32-49.	1.3	5
64	A New Formulation of Hyperbolic Navier-Stokes Solver based on Finite Volume Method on Arbitrary Grids. , 2018, , .		5
65	A Reconstructed Discontinuous Galerkin Method for the Compressible Flows on Unstructured Tetrahedral Grids. , 2011, , .		4
66	An Implicit Method for a Reconstructed Discontinuous Galerkin Method on Tetrahedron Grids. , 2012, , .		4
67	A reconstructed discontinuous Galerkin method for magnetohydrodynamics on arbitrary grids. Journal of Computational Physics, 2016, 326, 258-277.	1.9	4
68	A Reconstructed Direct Discontinuous Galerkin Method for Compressible Turbulent Flows on Hybrid Grids. , 2016, , .		4
69	Reconstructed Discontinuous Galerkin Methods Based on First-Order Hyperbolic System for Advection-Diffusion Equations. , 2017, , .		4
70	High-Order Hyperbolic Navier-Stokes Reconstructed Discontinuous Galerkin Method for Unsteady Flows. , 2019, , .		4
71	An Implicit Discontinuous Galerkin Method for the Unsteady Compressible Navier-Stokes Equations. , 2009, , .		3
72	A communication-efficient, distributed memory parallel code using discontinuous Galerkin method for compressible flows. , 2010, , .		3

#	ARTICLE	IF	CITATIONS
73	An implicit, reconstructed discontinuous Galerkin method for the unsteady compressible Navier-Stokes equations on 3D hybrid grids. , 2014, , .		3
74	On the Multi-GPU Computing of a Reconstructed Discontinuous Galerkin Method for Compressible Flows on 3D Hybrid Grids. , 2014, , .		3
75	Curved mesh generation using radial basis functions. , 2016, , .		3
76	Assessment of a hybrid finite element and finite volume code for turbulent incompressible flows. Journal of Computational Physics, 2016, 307, 653-669.	1.9	3
77	A Direct Discontinuous Galerkin method for the compressible Navier-Stokes equations on arbitrary grids. , 2016, , .		3
78	Explicit Hyperbolic Reconstructed Discontinuous Galerkin Methods for Time-Dependent Problems. , 2018, , .		3
79	High-Order Hyperbolic Navier-Stokes Reconstructed Discontinuous Galerkin Method. , 2019, , .		3
80	A BGK-Based Discontinuous Galerkin Method for the Navier-Stokes Equations on Arbitrary Grids. , 2010, , 103-122.		2
81	A Discontinuous Galerkin Method for the Magnetohydrodynamics on Arbitrary Grids. , 2011, , .		2
82	A Diagonally Implicit Runge-Kutta Method for the Discontinuous Galerkin solutions of the Navier-Stokes Equations. , 2011, , .		2
83	A Direct Discontinuous Galerkin Method for Computation of Turbulent Flows on Hybrid Grids. , 2016, , .		2
84	A Finite-Volume Method for Compressible Viscous Multiphase Flows. , 2018, , .		2
85	Reconstructed Discontinuous Galerkin Methods for Compressible Flows in ALE Formulation. , 2018, , .		2
86	An Implicit Finite-Volume Method for Compressible Turbulent Multiphase Flows on Unstructured Grids. , 2018, , .		2
87	A Moving Discontinuous Galerkin Finite Element Method for Conservation Laws. , 2020, , .		2
88	On Parallel Performance of a Discontinuous Galerkin Compressible Flow Solver Based on Different Numerical Fluxes. , 2011, , .		1
89	A Hierarchical Hermite WENO Reconstruction-Based Discontinuous Galerkin Method for Compressible Flows on Tetrahedral Grids. , 2012, , .		1
90	A Hermit WENO Reconstruction-based Discontinuous Galerkin Method for the Euler Equations on Tetrahedral Grids. , 2012, , .		1

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91	A Class of Rosenbrock Methods for a Reconstructed Discontinuous Galerkin Method for the Unsteady Compressible Flows. , 2015, , .		1
92	Application of Nonlinear Krylov Acceleration to a Reconstructed Discontinuous Galerkin Method for Compressible Flows. , 2016, , .		1
93	A Reconstructed Discontinuous Galerkin Method for Compressible Multiphase Flows in Lagrangian Formulation. , 2018, , .		1
94	A Vertex-centered Finite Volume Method with Sharp Interface Capturing for Compressible Two-phase Flows. , 2021, , .		1
95	Numerical Modeling for Compressible Three-fluid Flows with High Explosive Material. , 2021, , .		1
96	A Discontinuous Galerkin Method for Magnetohydrodynamics on Arbitrary Grids. , 2012, , .		1
97	A THINC-DG Method for Multi-Material Fluid Flow. , 2022, , .		1
98	A reconstructed discontinuous Galerkin method based on variational formulation for compressible flows. Journal of Computational Physics, 2022, 466, 111406.	1.9	1
99	A WENO Reconstruction-Based Discontinuous Galerkin Method for Compressible Flows on Hybrid Grids. , 2013, , .		0
100	A Reconstructed Discontinuous Galerkin Method Based on a Hierarchical WENO Reconstruction for Computing Shock Waves on Hybrid Grids. , 2013, , .		0
101	Implicit Large Eddy Simulation of Turbulent Flows by a Reconstructed Discontinuous Galerkin Method. , 2014, , .		0
102	A Reconstructed Discontinuous Galerkin Method for the Compressible Navier-Stokes Equations on Hybrid Grids. , 2015, , .		0
103	A Hybrid Reconstructed Discontinuous Galerkin and Continuous Galerkin method for Incompressible Flows. , 2015, , .		0
104	A Hierarchical WENO Reconstructed Discontinuous Galerkin Method for Computing Shock Waves. , 2015, , 951-956.		0
105	Reconstructed Discontinuous Galerkin Methods for Diffusion Using a First-Order Hyperbolic System Formulation. , 2017, , .		0
106	First memorial issue in honor of Dr. Meng-Sing Liou. Shock Waves, 2019, 29, 595-597.	1.0	0
107	Second memorial issue in honor of Dr. Meng-Sing Liou. Shock Waves, 2019, 29, 1007-1008.	1.0	0
108	A Discontinuous Galerkin Method for Multi-Material Hydrodynamics on Unstructured Mesh. , 2021, , .		0

#	ARTICLE	IF	CITATIONS
109	A Dynamically Load-balanced Parallel p-adaptive Discontinuous Galerkin Method for the Compressible Euler Equations on Tetrahedral Grids. , 2022, , .		0