# Chi-wang Shu

List of Publications by Year
in descending order



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|---|---|---|---|
| 450 papers | 53,856 citations | 3650 91 h-index | 1342 223 g-index |
| 484 all docs | 484 docs citations | 484 times ranked | 10832 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Efficient Implementation of Weighted ENO Schemes. Journal of Computational Physics, 1996, 126, 202-228. | 3.9 | 5,370 |
| 2 | Efficient implementation of essentially non-oscillatory shock-capturing schemes. Journal of Computational Physics, 1988, 77, 439-471. | 3.9 | 4,012 |
| 3 | Efficient implementation of essentially non-oscillatory shock-capturing schemes, II. Journal of Computational Physics, 1989, 83, 32-78. | 3.9 | 2,729 |
| 4 | The Local Discontinuous Galerkin Method for Time-Dependent Convection-Diffusion Systems. SIAM Journal on Numerical Analysis, 1998, 35, 2440-2463. | 2.3 | 1,896 |
| 5 | Strong Stability-Preserving High-Order Time Discretization Methods. SIAM Review, 2001, 43, 89-112. | 11.5 | 1,886 |
| 6 | The Rungeâ€“Kutta Discontinuous Galerkin Method for Conservation Laws V. Journal of Computational Physics, 1998, 141, 199-224. | 3.9 | 1,834 |
| 7 | Rungeâ€“Kutta Discontinuous Galerkin Methods for Convection-Dominated Problems. Journal of Scientific Computing, 2001, 16, 173-261. | 2.4 | 1,429 |
| 8 | TVB Runge-Kutta Local Projection Discontinuous Galerkin Finite Element Method for Conservation Laws II: General Framework. Mathematics of Computation, 1989, 52, 411. | 1.0 | 1,376 |
| 9 | Monotonicity Preserving Weighted Essentially Non-oscillatory Schemes with Increasingly High Order of Accuracy. Journal of Computational Physics, 2000, 160, 405-452. | 3.9 | 1,347 |
| 10 | TVB Runge-Kutta local projection discontinuous Galerkin finite element method for conservation laws III: One-dimensional systems. Journal of Computational Physics, 1989, 84, 90-113. | 3.9 | 1,177 |
| 11 | The Runge-Kutta Local Projection Discontinuous Galerkin Finite Element Method for Conservation Laws. IV: The Multidimensional Case. Mathematics of Computation, 1990, 54, 545. | 1.0 | 926 |
| 12 | Total-Variation-Diminishing Time Discretizations. SIAM Journal on Scientific and Statistical Computing, 1988, 9, 1073-1084. | 1.5 | 852 |
| 13 | Essentially non-oscillatory and weighted essentially non-oscillatory schemes for hyperbolic conservation laws. Lecture Notes in Mathematics, 1998, , 325-432. | 0.0 | 844 |
| 14 | High Order Weighted Essentially Nonoscillatory Schemes for Convection Dominated Problems. SIAM Review, 2009, 51, 82-126. | 11.5 | 716 |
| 15 | Weighted Essentially Non-oscillatory Schemes on Triangular Meshes. Journal of Computational Physics, 1999, 150, 97-127. | 3.9 | 664 |
| 16 | High-Order Essentially Nonoscillatory Schemes for Hamiltonâ€“Jacobi Equations. SIAM Journal on Numerical Analysis, 1991, 28, 907-922. | 2.3 | 624 |
| 17 | On the Gibbs Phenomenon and Its Resolution. SIAM Review, 1997, 39, 644-668. | 11.5 | 620 |
| 18 | On positivity-preserving high order discontinuous Galerkin schemes for compressible Euler equations on rectangular meshes. Journal of Computational Physics, 2010, 229, 8918-8934. | 3.9 | 485 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | The Runge-Kutta local projection $P^1$-discontinuous-Galerkin finite element method for scalar conservation laws. ESAIM: Mathematical Modelling and Numerical Analysis, 1991, 25, 337-361. | 1.9 | 448 |
| 20 | On maximum-principle-satisfying high order schemes for scalar conservation laws. Journal of Computational Physics, 2010, 229, 3091-3120. | 3.9 | 438 |
| 21 | Rungeâ€"Kutta discontinuous Galerkin method using WENO limiters II: Unstructured meshes. Journal of Computational Physics, 2008, 227, 4330-4353. | 3.9 | 432 |
| 22 | The Development of Discontinuous Galerkin Methods. Lecture Notes in Computational Science and Engineering, 2000, , 3-50. | 0.0 | 389 |
| 23 | Runge--Kutta Discontinuous Galerkin Method Using WENO Limiters. SIAM Journal of Scientific Computing, 2005, 26, 907-929. | 2.8 | 338 |
| 24 | High-order Finite Difference and Finite Volume WENO Schemes and Discontinuous Galerkin Methods for CFD. International Journal of Computational Fluid Dynamics, 2003, 17, 107-118. | 1.3 | 336 |
| 25 | A Technique of Treating Negative Weights in WENO Schemes. Journal of Computational Physics, 2002, 175, 108-127. | 3.9 | 333 |
| 26 | Hermite WENO schemes and their application as limiters for Rungeâ€"Kutta discontinuous Galerkin method: one-dimensional case. Journal of Computational Physics, 2004, 193, 115-135. | 3.9 | 329 |
| 27 | Hierarchical reconstruction for discontinuous Galerkin methods on unstructured grids with a WENO-type linear reconstruction and partial neighboring cells. Journal of Computational Physics, 2009, 228, 2194-2212. | 3.9 | 322 |
| 28 | High order finite difference WENO schemes with the exact conservation property for the shallow water equations. Journal of Computational Physics, 2005, 208, 206-227. | 3.9 | 291 |
| 29 | Hierarchical reconstruction for spectral volume method on unstructured grids. Journal of Computational Physics, 2009, 228, 5787-5802. | 3.9 | 279 |
| 30 | A Local Discontinuous Galerkin Method for KdV Type Equations. SIAM Journal on Numerical Analysis, 2002, 40, 769-791. | 2.3 | 278 |
| 31 | High Order Strong Stability Preserving Time Discretizations. Journal of Scientific Computing, 2009, 38, 251-289. | 2.4 | 277 |
| 32 | Quadrature-Free Implementation of Discontinuous Galerkin Method for Hyperbolic Equations. AIAA Journal, 1998, 36, 775-782. | 2.6 | 261 |
| 33 | Positivity-preserving high order well-balanced discontinuous Galerkin methods for the shallow water equations. Advances in Water Resources, 2010, 33, 1476-1493. | 3.8 | 259 |
| 34 | Resolution of high order WENO schemes for complicated flow structures. Journal of Computational Physics, 2003, 186, 690-696. | 3.9 | 251 |
| 35 | Revisiting Hughesâ€™ dynamic continuum model for pedestrian flow and the development of an efficient solution algorithm. Transportation Research Part B: Methodological, 2009, 43, 127-141. | 5.9 | 248 |
| 36 | Locally divergence-free discontinuous Galerkin methods for the Maxwell equations. Journal of Computational Physics, 2004, 194, 588-610. | 3.9 | 232 |

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| 37 | On the Construction, Comparison, and Local Characteristic Decomposition for High-Order Central WENO Schemes. Journal of Computational Physics, 2002, 183, 187-209. | 3.9 | 223 |
| 38 | Hermite WENO schemes and their application as limiters for Rungeâ€"Kutta discontinuous Galerkin method II: Two dimensional case. Computers and Fluids, 2005, 34, 642-663. | 2.6 | 223 |
| 39 | High order well-balanced finite volume WENO schemes and discontinuous Galerkin methods for a class of hyperbolic systems with source terms. Journal of Computational Physics, 2006, 214, 567-598. | 3.9 | 217 |
| 40 | High-order well-balanced finite volume WENO schemes for shallow water equation with moving water. Journal of Computational Physics, 2007, 226, 29-58. | 3.9 | 211 |
| 41 | Maximum-principle-satisfying and positivity-preserving high-order schemes for conservation laws: survey and new developments. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 2752-2776. | 2.1 | 208 |
| 42 | Local discontinuous Galerkin methods for nonlinear SchrÃ¶dinger equations. Journal of Computational Physics, 2005, 205, 72-97. | 3.9 | 204 |
| 43 | An efficient class of WENO schemes with adaptive order. Journal of Computational Physics, 2016, 326, 780-804. | 3.9 | 199 |
| 44 | On the Gibbs phenomenon I: recovering exponential accuracy from the Fourier partial sum of a nonperiodic analytic function. Journal of Computational and Applied Mathematics, 1992, 43, 81-98. | 2.0 | 191 |
| 45 | On positivity preserving finite volume schemes for Euler equations. Numerische Mathematik, 1996, 73, 119-130. | 1.8 | 188 |
| 46 | Positivity-preserving high order finite difference WENO schemes for compressible Euler equations. Journal of Computational Physics, 2012, 231, 2245-2258. | 3.9 | 179 |
| 47 | Maximum-Principle-Satisfying and Positivity-Preserving High Order Discontinuous Galerkin Schemes forÂConservation Laws on Triangular Meshes. Journal of Scientific Computing, 2012, 50, 29-62. | 2.4 | 178 |
| 48 | Positivity-preserving method for high-order conservative schemes solving compressible Euler equations. Journal of Computational Physics, 2013, 242, 169-180. | 3.9 | 169 |
| 49 | A simple weighted essentially nonoscillatory limiter for Rungeâ€"Kutta discontinuous Galerkin methods. Journal of Computational Physics, 2013, 232, 397-415. | 3.9 | 167 |
| 50 | Error Estimates to Smooth Solutions of Runge--Kutta Discontinuous Galerkin Methods for Scalar Conservation Laws. SIAM Journal on Numerical Analysis, 2004, 42, 641-666. | 2.3 | 166 |
| 51 | Positivity-preserving high order discontinuous Galerkin schemes for compressible Euler equations with source terms. Journal of Computational Physics, 2011, 230, 1238-1248. | 3.9 | 163 |
| 52 | A Comparison of Troubled-Cell Indicators for Runge--Kutta Discontinuous Galerkin Methods Using Weighted Essentially Nonoscillatory Limiters. SIAM Journal of Scientific Computing, 2005, 27, 995-1013. | 2.8 | 161 |
| 53 | Entropy stable high order discontinuous Galerkin methods with suitable quadrature rules for hyperbolic conservation laws. Journal of Computational Physics, 2017, 345, 427-461. | 3.9 | 161 |
| 54 | A Discontinuous Galerkin Finite Element Method for Hamilton--Jacobi Equations. SIAM Journal of Scientific Computing, 1999, 21, 666-690. | 2.8 | 158 |

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| 55 | Numerical experiments on the accuracy of ENO and modified ENO schemes. Journal of Scientific Computing, 1990, 5, 127-149. | 2.4 | 155 |
| 56 | High-Order WENO Schemes for Hamilton--Jacobi Equations on Triangular Meshes. SIAM Journal of Scientific Computing, 2003, 24, 1005-1030. | 2.8 | 150 |
| 57 | Rungeâ€"Kutta discontinuous Galerkin method using a new type of WENO limiters on unstructured meshes. Journal of Computational Physics, 2013, 248, 200-220. | 3.9 | 145 |
| 58 | Development of nonlinear weighted compact schemes with increasingly higher order accuracy. Journal of Computational Physics, 2008, 227, 7294-7321. | 3.9 | 143 |
| 59 | Title is missing!. Journal of Scientific Computing, 2002, 17, 27-47. | 2.4 | 139 |
| 60 | Robust high order discontinuous Galerkin schemes for two-dimensional gaseous detonations. Journal of Computational Physics, 2012, 231, 653-665. | 3.9 | 137 |
| 61 | High order WENO and DG methods for time-dependent convection-dominated PDEs: A brief survey of several recent developments. Journal of Computational Physics, 2016, 316, 598-613. | 3.9 | 133 |
| 62 | High Order ENO and WENO Schemes for Computational Fluid Dynamics. Lecture Notes in Computational Science and Engineering, 1999, , 439-582. | 0.0 | 128 |
| 63 | Anti-diffusive flux corrections for high order finite difference WENO schemes. Journal of Computational Physics, 2005, 205, 458-485. | 3.9 | 125 |
| 64 | A Local Discontinuous Galerkin Method for the Camassaâ€"Holm Equation. SIAM Journal on Numerical Analysis, 2008, 46, 1998-2021. | 2.3 | 124 |
| 65 | A high order ENO conservative Lagrangian type scheme for the compressible Euler equations. Journal of Computational Physics, 2007, 227, 1567-1596. | 3.9 | 122 |
| 66 | A WENO-solver for the transients of Boltzmannâ€"Poisson system for semiconductor devices: performance and comparisons with Monte Carlo methods. Journal of Computational Physics, 2003, 184, 498-525. | 3.9 | 120 |
| 67 | Locally Divergence-Free Discontinuous Galerkin Methods for MHD Equations. Journal of Scientific Computing, 2005, 22-23, 413-442. | 2.4 | 119 |
| 68 | A new type of multi-resolution WENO schemes with increasingly higher order of accuracy. Journal of Computational Physics, 2018, 375, 659-683. | 3.9 | 118 |
| 69 | Positivity preserving semi-Lagrangian discontinuous Galerkin formulation: Theoretical analysis and application to the Vlasovâ€"Poisson system. Journal of Computational Physics, 2011, 230, 8386-8409. | 3.9 | 117 |
| 70 | Local discontinuous Galerkin methods for the Cahnâ€"Hilliard type equations. Journal of Computational Physics, 2007, 227, 472-491. | 3.9 | 116 |
| 71 | Stability Analysis and A Priori Error Estimates of the Third Order Explicit Rungeâ€"Kutta Discontinuous Galerkin Method for Scalar Conservation Laws. SIAM Journal on Numerical Analysis, 2010, 48, 1038-1063. | 2.3 | 114 |
| 72 | Inverse Lax-Wendroff procedure for numerical boundary conditions of conservation laws. Journal of Computational Physics, 2010, 229, 8144-8166. | 3.9 | 113 |

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| 73 | Superconvergence of Discontinuous Galerkin and Local Discontinuous Galerkin Schemes for Linear Hyperbolic and Convection-Diffusion Equations in One Space Dimension. SIAM Journal on Numerical Analysis, 2010, 47, 4044-4072. | 2.3 | 113 |
| 74 | A High-Order Discontinuous Galerkin Method for 2D Incompressible Flows. Journal of Computational Physics, 2000, 160, 577-596. | 3.9 | 111 |
| 75 | 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. | 6.7 | 110 |
| 76 | Local discontinuous Galerkin methods for nonlinear dispersive equations. Journal of Computational Physics, 2004, 196, 751-772. | 3.9 | 107 |
| 77 | Numerical Convergence Study of Nearly Incompressible, Inviscid Taylorâ€"Green Vortex Flow. Journal of Scientific Computing, 2005, 24, 1-27. | 2.4 | 106 |
| 78 | Nonlinearly Stable Compact Schemes for Shock Calculations. SIAM Journal on Numerical Analysis, 1994, 31, 607-627. | 2.3 | 105 |
| 79 | Stability and Error Estimates of Local Discontinuous Galerkin Methods with Implicit-Explicit Time-Marching for Advection-Diffusion Problems. SIAM Journal on Numerical Analysis, 2015, 53, 206-227. | 2.3 | 104 |
| 80 | A numerical study for the performance of the Rungeâ€"Kutta discontinuous Galerkin method based on different numerical fluxes. Journal of Computational Physics, 2006, 212, 540-565. | 3.9 | 101 |
| 81 | Central Discontinuous Galerkin Methods on Overlapping Cells with a Nonoscillatory Hierarchical Reconstruction. SIAM Journal on Numerical Analysis, 2007, 45, 2442-2467. | 2.3 | 99 |
| 82 | AN ANALYSIS OF THREE DIFFERENT FORMULATIONS OF THE DISCONTINUOUS GALERKIN METHOD FOR DIFFUSION EQUATIONS. Mathematical Models and Methods in Applied Sciences, 2003, 13, 395-413. | 3.3 | 96 |
| 83 | 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. | 6.7 | 96 |
| 84 | Essentially non-oscillatory and weighted essentially non-oscillatory schemes. Acta Numerica, 2020, 29, 701-762. | 10.8 | 96 |
| 85 | Finite Difference WENO Schemes with Lax--Wendroff-Type Time Discretizations. SIAM Journal of Scientific Computing, 2003, 24, 2185-2198. | 2.8 | 94 |
| 86 | On the Order of Accuracy and Numerical Performance of Two Classes of Finite Volume WENO Schemes. Communications in Computational Physics, 2011, 9, 807-827. | 1.7 | 94 |
| 87 | An Alternative Formulation of Finite Difference Weighted ENO Schemes with Lax--Wendroff Time Discretization for Conservation Laws. SIAM Journal of Scientific Computing, 2013, 35, A1137-A1160. | 2.8 | 94 |
| 88 | The discontinuous Galerkin method with Laxâ€"Wendroff type time discretizations. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 4528-4543. | 6.7 | 93 |
| 89 | Conservative high order semi-Lagrangian finite difference WENO methods for advection in incompressible flow. Journal of Computational Physics, 2011, 230, 863-889. | 3.9 | 92 |
| 90 | Efficient implementation of high order inverse Laxâ€"Wendroff boundary treatment for conservation laws. Journal of Computational Physics, 2012, 231, 2510-2527. | 3.9 | 91 |

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| 91 | Maximum-principle-satisfying second order discontinuous Galerkin schemes for convectionâ€"diffusion equations on triangular meshes. Journal of Computational Physics, 2013, 234, 295-316. | 3.9 | 91 |
| 92 | Computational Study of Shock Mitigation and Drag Reduction by Pulsed Energy Lines. AIAA Journal, 2006, 44, 1720-1731. | 2.6 | 90 |
| 93 | Analysis of a Local Discontinuous Galerkin Method for Linear Time-Dependent Fourth-Order Problems. SIAM Journal on Numerical Analysis, 2009, 47, 3240-3268. | 2.3 | 89 |
| 94 | A discontinuous Galerkin finite element method for directly solving the Hamiltonâ€"Jacobi equations. Journal of Computational Physics, 2007, 223, 398-415. | 3.9 | 87 |
| 95 | A New Smoothness Indicator for the WENO Schemes and Its Effect on the Convergence to Steady State Solutions. Journal of Scientific Computing, 2007, 31, 273-305. | 2.4 | 85 |
| 96 | Analysis of Optimal Superconvergence of Discontinuous Galerkin Method for Linear Hyperbolic Equations. SIAM Journal on Numerical Analysis, 2012, 50, 3110-3133. | 2.3 | 84 |
| 97 | A weighted essentially non-oscillatory numerical scheme for a multi-class Lighthillâ€"Whithamâ€"Richards traffic flow model. Journal of Computational Physics, 2003, 191, 639-659. | 3.9 | 83 |
| 98 | 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 | 82 |
| 99 | High Order Well-Balanced WENO Scheme for the Gas Dynamics Equations Under Gravitational Fields. Journal of Scientific Computing, 2013, 54, 645-662. | 2.4 | 82 |
| 100 | An analysis of and a comparison between the discontinuous Galerkin and the spectral finite volume methods. Computers and Fluids, 2005, 34, 581-592. | 2.6 | 80 |
| 101 | High Order Finite Difference WENO Schemes for Nonlinear Degenerate Parabolic Equations. SIAM Journal of Scientific Computing, 2011, 33, 939-965. | 2.8 | 79 |
| 102 | Local discontinuous Galerkin methods for two classes of two-dimensional nonlinear wave equations. Physica D: Nonlinear Phenomena, 2005, 208, 21-58. | 2.9 | 78 |
| 103 | Positivity-preserving Lagrangian scheme for multi-material compressible flow. Journal of Computational Physics, 2014, 257, 143-168. | 3.9 | 78 |
| 104 | A weighted essentially non-oscillatory numerical scheme for a multi-class traffic flow model on an inhomogeneous highway. Journal of Computational Physics, 2006, 212, 739-756. | 3.9 | 76 |
| 105 | Dynamic continuum pedestrian flow model with memory effect. Physical Review E, 2009, 79, 066113. | 2.1 | 76 |
| 106 | High-order ENO schemes applied to two- and three-dimensional compressible flow. Applied Numerical Mathematics, 1992, 9, 45-71. | 2.2 | 72 |
| 107 | A Numerical Resolution Study of High Order Essentially Non-oscillatory Schemes Applied to Incompressible Flow. Journal of Computational Physics, 1994, 110, 39-46. | 3.9 | 71 |
| 108 | On the Advantage of Well-Balanced Schemes forÂMoving-Water Equilibria of the Shallow Water Equations. Journal of Scientific Computing, 2011, 48, 339-349. | 2.4 | 71 |

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| 109 | On the Gibbs Phenomenon IV: Recovering Exponential Accuracy in a Subinterval from a Gegenbauer Partial Sum of a Piecewise Analytic Function. Mathematics of Computation, 1995, 64, 1081. | 1.0 | 69 |
| 110 | High order conservative Lagrangian schemes with Laxâ€“Wendroff type time discretization for the compressible Euler equations. Journal of Computational Physics, 2009, 228, 8872-8891. | 3.9 | 68 |
| 111 | <i>L</i><sup>2</sup>stability analysis of the central discontinuous Galerkin method and a comparison between the central and regular discontinuous Galerkin methods. ESAIM: Mathematical Modelling and Numerical Analysis, 2008, 42, 593-607. | 1.9 | 66 |
| 112 | Geometric Shock-Capturing ENO Schemes for Subpixel Interpolation, Computation and Curve Evolution. Graphical Models, 1997, 59, 278-301. | 1.4 | 65 |
| 113 | High-order finite volume WENO schemes for the shallow water equations with dry states. Advances in Water Resources, 2011, 34, 1026-1038. | 3.8 | 65 |
| 114 | Hermite WENO schemes for Hamiltonâ€“Jacobi equations. Journal of Computational Physics, 2005, 204, 82-99. | 3.9 | 64 |
| 115 | Multistage interaction of a shock wave and a strong vortex. Physics of Fluids, 2005, 17, 116101. | 3.9 | 64 |
| 116 | A discontinuous Galerkin solver for Boltzmannâ€“Poisson systems in nano devices. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 3130-3150. | 6.7 | 63 |
| 117 | Numerical viscosity and resolution of high-order weighted essentially nonoscillatory schemes for compressible flows with high Reynolds numbers. Physical Review E, 2003, 68, 046709. | 2.1 | 62 |
| 118 | Multidomain WENO Finite Difference Method with Interpolation at Subdomain Interfaces. Journal of Scientific Computing, 2003, 19, 405-438. | 2.4 | 61 |
| 119 | Extension of a Post Processing Technique for the Discontinuous Galerkin Method for Hyperbolic Equations with Application to an Aeroacoustic Problem. SIAM Journal of Scientific Computing, 2005, 26, 821-843. | 2.8 | 61 |
| 120 | Discontinuous Galerkin method based on non-polynomial approximation spaces. Journal of Computational Physics, 2006, 218, 295-323. | 3.9 | 60 |
| 121 | High resolution WENO simulation of 3D detonation waves. Combustion and Flame, 2013, 160, 447-462. | 5.3 | 60 |
| 122 | Optimal energy conserving local discontinuous Galerkin methods for second-order wave equation in heterogeneous media. Journal of Computational Physics, 2014, 272, 88-107. | 3.9 | 60 |
| 123 | On the Gibbs phenomenon V: recovering exponential accuracy from collocation point values of a piecewise analytic function. Numerische Mathematik, 1995, 71, 511-526. | 1.8 | 58 |
| 124 | High-Order Well-Balanced Finite Difference WENO Schemes for a Class of Hyperbolic Systems with Source Terms. Journal of Scientific Computing, 2006, 27, 477-494. | 2.4 | 57 |
| 125 | Superconvergence and time evolution of discontinuous Galerkin finite element solutions. Journal of Computational Physics, 2008, 227, 9612-9627. | 3.9 | 57 |
| 126 | A new class of central compact schemes with spectral-like resolution I: Linear schemes. Journal of Computational Physics, 2013, 248, 235-256. | 3.9 | 57 |

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|---|---|---|---|
| 127 | On the Gibbs Phenomenon III: Recovering Exponential Accuracy in a Sub-Interval From a Spectral Partial Sum of a Pecewise Analytic Function. SIAM Journal on Numerical Analysis, 1996, 33, 280-290. | 2.3 | 56 |
| 128 | Shock capturing, level sets, and PDE based methods in computer vision and image processing: a review of Osherâ€™s contributions. Journal of Computational Physics, 2003, 185, 309-341. | 3.9 | 56 |
| 129 | Superconvergence of Discontinuous Galerkin Methods for Scalar Nonlinear Conservation Laws in One Space Dimension. SIAM Journal on Numerical Analysis, 2012, 50, 2336-2356. | 2.3 | 56 |
| 130 | A high order moving boundary treatment for compressible inviscid flows. Journal of Computational Physics, 2011, 230, 6023-6036. | 3.9 | 55 |
| 131 | A new class of central compact schemes with spectral-like resolution II: Hybrid weighted nonlinear schemes. Journal of Computational Physics, 2015, 284, 133-154. | 3.9 | 55 |
| 132 | An efficient discontinuous Galerkin method on triangular meshes for a pedestrian flow model. International Journal for Numerical Methods in Engineering, 2008, 76, 337-350. | 2.9 | 53 |
| 133 | Runge-Kutta Discontinuous Galerkin Method with a Simple and Compact Hermite WENO Limiter. Communications in Computational Physics, 2016, 19, 944-969. | 1.7 | 53 |
| 134 | Numerical Comparison of WENO Finite Volume and Rungeâ€"Kutta Discontinuous Galerkin Methods. Journal of Scientific Computing, 2001, 16, 145-171. | 2.4 | 52 |
| 135 | A second order discontinuous Galerkin fast sweeping method for Eikonal equations. Journal of Computational Physics, 2008, 227, 8191-8208. | 3.9 | 51 |
| 136 | A new type of multi-resolution WENO schemes with increasingly higher order of accuracy on triangular meshes. Journal of Computational Physics, 2019, 392, 19-33. | 3.9 | 51 |
| 137 | Mixed-RKDG Finite Element Methods for the 2-D Hydrodynamic Model for Semiconductor Device Simulation. VLSI Design, 1995, 3, 145-158. | 0.5 | 50 |
| 138 | A reactive dynamic continuum user equilibrium model for bi-directional pedestrian flows. Acta Mathematica Scientia, 2009, 29, 1541-1555. | 1.1 | 50 |
| 139 | Conservative Semi-Lagrangian Finite Difference WENO Formulations with Applications to the Vlasov Equation. Communications in Computational Physics, 2011, 10, 979-1000. | 1.7 | 50 |
| 140 | High order finite difference methods with subcell resolution for advection equations with stiff source terms. Journal of Computational Physics, 2012, 231, 190-214. | 3.9 | 50 |
| 141 | Efficient time discretization for local discontinuous Galerkin methods. Discrete and Continuous Dynamical Systems - Series B, 2007, 8, 677-693. | 0.9 | 50 |
| 142 | Discontinuous Galerkin method for hyperbolic equations involving $$delta $$ -singularities: negative-order norm error estimates and applications. Numerische Mathematik, 2013, 124, 753-781. | 1.8 | 49 |
| 143 | Bound-preserving discontinuous Galerkin methods for relativistic hydrodynamics. Journal of Computational Physics, 2016, 315, 323-347. | 3.9 | 49 |
| 144 | Numerical Simulation of High Mach Number Astrophysical Jets with Radiative Cooling. Journal of Scientific Computing, 2005, 24, 29-44. | 2.4 | 48 |

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| 145 | 2D semiconductor device simulations by WENO-Boltzmann schemes: Efficiency, boundary conditions and comparison to Monte Carlo methods. Journal of Computational Physics, 2006, 214, 55-80. | 3.9 | 48 |
| 146 | Superconvergence of Discontinuous Galerkin Methods for Two-Dimensional Hyperbolic Equations. SIAM Journal on Numerical Analysis, 2015, 53, 1651-1671. | 2.3 | 47 |
| 147 | Local discontinuous Galerkin methods with implicit-explicit time-marching for multi-dimensional convection-diffusion problems. ESAIM: Mathematical Modelling and Numerical Analysis, 2016, 50, 1083-1105. | 1.9 | 47 |
| 148 | A new troubled-cell indicator for discontinuous Galerkin methods for hyperbolic conservation laws. Journal of Computational Physics, 2017, 347, 305-327. | 3.9 | 47 |
| 149 | Analysis of the discontinuous Galerkin method for Hamiltonâ€“Jacobi equations. Applied Numerical Mathematics, 2000, 33, 423-434. | 2.2 | 46 |
| 150 | A cell-centered Lagrangian scheme with the preservation of symmetry and conservation properties for compressible fluid flows in two-dimensional cylindrical geometry. Journal of Computational Physics, 2010, 229, 7191-7206. | 3.9 | 46 |
| 151 | Efficient Implementation of Essentially Non-oscillatory Shock-Capturing Schemes, II. , 1989, , 328-374. | | 46 |
| 152 | On a One-Sided Post-Processing Technique for the Discontinuous Galerkin Methods. Methods and Applications of Analysis, 2003, 10, 295-308. | 0.5 | 46 |
| 153 | Comparison of two formulations for high-order accurate essentially nonoscillatory schemes. AIAA Journal, 1994, 32, 1970-1977. | 2.6 | 45 |
| 154 | Discontinuous Galerkin method for KrauseÊ¼s consensus models and pressureless Euler equations. Journal of Computational Physics, 2013, 252, 109-127. | 3.9 | 45 |
| 155 | Stability analysis and error estimates of local discontinuous Galerkin methods with implicitâ€“explicit time-marching for nonlinear convectionâ€“diffusion problems. Applied Mathematics and Computation, 2016, 272, 237-258. | 2.3 | 45 |
| 156 | Entropy stable high order discontinuous Galerkin methods for ideal compressible MHD on structured meshes. Journal of Computational Physics, 2018, 354, 163-178. | 3.9 | 45 |
| 157 | Provably positive high-order schemes for ideal magnetohydrodynamics: analysis on general meshes. Numerische Mathematik, 2019, 142, 995-1047. | 1.8 | 45 |
| 158 | Energy conserving local discontinuous Galerkin methods for wave propagation problems. Inverse Problems and Imaging, 2013, 7, 967-986. | 1.2 | 45 |
| 159 | Fast Sweeping Fifth Order WENO Scheme for Static Hamilton-Jacobi Equations with Accurate Boundary Treatment. Journal of Scientific Computing, 2010, 45, 514-536. | 2.4 | 44 |
| 160 | A discontinuous Galerkin method for nonlinear parabolic equations and gradient flow problems with interaction potentials. Journal of Computational Physics, 2018, 352, 76-104. | 3.9 | 43 |
| 161 | Discontinuous Galerkin methods for the one-dimensional Vlasov-Poisson system. Kinetic and Related Models, 2011, 4, 955-989. | 0.9 | 43 |
| 162 | Reinterpretation and simplified implementation of a discontinuous Galerkin method for Hamiltonâ€“Jacobi equations. Applied Mathematics Letters, 2005, 18, 1204-1209. | 2.9 | 42 |

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