

Very simple, carbuncle-free, boundary-layer-resolving,

Journal of Computational Physics

227, 2560-2581

DOI: [10.1016/j.jcp.2007.11.003](https://doi.org/10.1016/j.jcp.2007.11.003)

Citation Report

#	ARTICLE	IF	CITATIONS
1	An Evaluation of Euler Fluxes II: Hypersonic Surface Heating Computation. , 2008, , .		4
2	Numerical Analysis on Aerodynamic Heating in Hypersonic Shock Interacting Flow. Journal of the Japan Society for Aeronautical and Space Sciences, 2008, 56, 269-277.	0.0	2
3	Abort System Using Supersonic Aerodynamic Interaction for Capsule-Type Space Transportation System. Journal of the Japan Society for Aeronautical and Space Sciences, 2009, 57, 175-182.	0.0	5
4	Affordable, entropy-consistent Euler flux functions II: Entropy production at shocks. Journal of Computational Physics, 2009, 228, 5410-5436.	1.9	272
5	Evaluation of Euler Fluxes for Hypersonic Flow Computations. AIAA Journal, 2009, 47, 44-53.	1.5	99
6	The Development of Numerical Fluid Mechanics and Aerodynamics since the 1960s: US and Canada. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2009, , 159-185.	0.2	3
7	On AUSM-Family Scheme for All Speeds with Shock Detection for Carbuncle-Fix. , 2009, , .		12
8	A MODEL OF MIRA'S COMETARY HEAD/TAIL ENTERING THE LOCAL BUBBLE. Astrophysical Journal, 2010, 725, 1466-1475.	1.6	23
9	Simulation of the growth of the 3D Rayleigh-Taylor instability in supernova remnants using an expanding reference frame. Astronomy and Astrophysics, 2010, 515, A104.	2.1	34
10	Evaluation of Euler Fluxes for Hypersonic Heating Computations. AIAA Journal, 2010, 48, 763-776.	1.5	101
11	Three-Dimensional Carbuncles and Euler Fluxes. , 2010, , .		3
12	Unstructured Adaptive Grid Techniques Applied to a Hypersonic Re-Entry Vehicle. , 2010, , .		0
13	Parameter-Free Simple Low-Dissipation AUSM-Family Scheme for All Speeds. AIAA Journal, 2011, 49, 1693-1709.	1.5	309
14	New-Generation Hyperbolic Navier-Stokes Schemes: $O(1/h)$ Speed-Up and Accurate Viscous/Heat Fluxes. , 2011, , .		35
15	A New Pressure Flux for AUSM-Family Schemes for Hypersonic Heating Computations. , 2011, , .		5
16	Rotated Hybrid Low Diffusion ECUSP-HLL scheme and Its Applications to Hypersonic Flows. , 2011, , .		5
17	Cures for numerical shock instability in HLLC solver. International Journal for Numerical Methods in Fluids, 2011, 65, 1026-1038.	0.9	57
18	A multiscale technique for the validation of a numerical code for predicting the pressure field induced by a high-power spark. Journal Physics D: Applied Physics, 2011, 44, 165201.	1.3	8

#	ARTICLE	IF	CITATIONS
19	Reynolds-Averaged Navier-Stokes Simulations of the HyShot II Scramjet. AIAA Journal, 2012, 50, 1717-1732.	1.5	110
20	Carbuncle Phenomena and Other Shock Anomalies in Three Dimensions. AIAA Journal, 2012, 50, 2655-2669.	1.5	44
21	On the remedy against shock anomalies in kinetic schemes. Journal of Computational Physics, 2013, 255, 106-129.	1.9	21
22	Multidimensional Numerical Noise from Captured Shock Wave and Its Cure. AIAA Journal, 2013, 51, 992-998.	1.5	25
23	Towards shock-stable and accurate hypersonic heating computations: A new pressure flux for AUSM-family schemes. Journal of Computational Physics, 2013, 245, 62-83.	1.9	184
24	A Further Survey of Shock Capturing Methods on Hypersonic Heating Issues. , 2013, , .		9
25	Ventus: An Overset Adaptive Cartesian Simulation Framework for Moving Boundary Problems. , 2013, , .		2
26	Numerical Analysis of a Rotating Detonation Engine in the Relative Reference Frame. , 2014, , .		62
27	OFF, Open source Finite volume Fluid dynamics code: A free, high-order solver based on parallel, modular, object-oriented Fortran API. Computer Physics Communications, 2014, 185, 2151-2194.	3.0	14
28	A robust and contact resolving Riemann solver on unstructured mesh, Part I, Euler method. Journal of Computational Physics, 2014, 268, 432-455.	1.9	14
29	A hybrid numerical method and its application to inviscid compressible flow problems. Computer Physics Communications, 2014, 185, 479-488.	3.0	13
30	Evaluation of Euler fluxes by a high-order CFD scheme: shock instability. International Journal of Computational Fluid Dynamics, 2014, 28, 171-186.	0.5	11
31	First, Second, and Third Order Finite-Volume Schemes for Navier-Stokes Equations. , 2014, , .		18
32	Modified SLAU2 scheme with enhanced shock stability. Computers and Fluids, 2014, 100, 176-184.	1.3	20
33	A Stability Analysis of Hybrid Schemes to Cure Shock Instability. Communications in Computational Physics, 2014, 15, 1320-1342.	0.7	29
34	Performance comparison of flux schemes for numerical simulation of high-speed inviscid flows. Progress in Computational Fluid Dynamics, 2014, 14, 83.	0.1	19
35	Multidimensional Flux Difference Splitting Schemes. AIAA Journal, 2015, 53, 1936-1948.	1.5	4
36	Physical Diffusion Cures the Carbuncle Phenomenon. , 2015, , .		4

#	ARTICLE	IF	CITATIONS
37	Principles of Solution of the Governing Equations. , 2015, , 29-72.		7
38	Evaluation of rotated upwind schemes for contact discontinuity and strong shock. Computers and Fluids, 2016, 134-135, 11-22.	1.3	22
39	An accurate shock-capturing scheme based on rotated-hybrid Riemann solver. International Journal of Numerical Methods for Heat and Fluid Flow, 2016, 26, 1310-1327.	1.6	5
40	High temperature effects in moving shock reflection with protruding Mach stem. Theoretical and Applied Mechanics Letters, 2016, 6, 222-225.	1.3	6
41	Time evolution of the anisotropies of the hydrodynamically expanding SQGP. International Journal of Modern Physics A, 2016, 31, 1645016.	0.5	2
42	Application of artificial viscosity for suppressing the carbuncle phenomenon in Godunov-type schemes. Mathematical Models and Computer Simulations, 2016, 8, 249-262.	0.1	10
43	Developing a hybrid flux function suitable for hypersonic flow simulation with high-order methods. International Journal for Numerical Methods in Fluids, 2016, 81, 309-327.	0.9	24
44	A robust HLLC-type Riemann solver for strong shock. Journal of Computational Physics, 2016, 309, 185-206.	1.9	56
45	Assessment of SLAU2 and other flux functions with slope limiters in hypersonic shock-interaction heating. Computers and Fluids, 2016, 129, 134-145.	1.3	25
46	Ventus: An Overset Adaptive Cartesian Simulation Framework for Moving Boundary Problems, Part II - Parallelism and Dynamic Load Balancing. , 2016, , .		0
47	Hyperbolic Navier-Stokes Solver for Three-Dimensional Flows. , 2016, , .		24
48	A characteristic space-time conservation element and solution element method for conservation laws II. Multidimensional extension. Journal of Computational Physics, 2016, 305, 775-792.	1.9	36
49	Damping numerical oscillations in hybrid solvers through detection of Gibbs phenomenon. International Journal for Numerical Methods in Fluids, 2017, 84, 699-714.	0.9	3
50	General Procedure for Riemann Solver to Eliminate Carbuncle and Shock Instability. AIAA Journal, 2017, 55, 2002-2015.	1.5	18
51	Numerical Study on Distorted Mach Reflection of Strong Moving Shock involving Laminar Transport. , 2017, , .		3
52	Artificial viscosity in Godunov-type schemes to cure the carbuncle phenomenon. Journal of Computational Physics, 2017, 345, 308-329.	1.9	44
53	Comparative study of Roe, RHLL and Rusanov fluxes for shock-capturing schemes. IOP Conference Series: Materials Science and Engineering, 2017, 243, 012007.	0.3	1
54	On numerical instabilities of Godunov-type schemes for strong shocks. Journal of Computational Physics, 2017, 350, 607-637.	1.9	44

#	ARTICLE	IF	CITATIONS
55	Role of the momentum interpolation mechanism of the Roe scheme in shock instability. <i>International Journal for Numerical Methods in Fluids</i> , 2017, 84, 335-351.	0.9	14
56	A robust low-dissipation AUSM-family scheme for numerical shock stability on unstructured grids. <i>International Journal for Numerical Methods in Fluids</i> , 2017, 84, 135-151.	0.9	27
57	Multidimensional High-Resolution Schemes for Viscous Hypersonic Flows. <i>AIAA Journal</i> , 2017, 55, 141-152.	1.5	7
58	Multidimensional Upwinding. <i>Handbook of Numerical Analysis</i> , 2017, 18, 53-80.	0.9	10
59	Hydrodynamical models of cometary H ₂ regions. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 466, 4573-4591.	1.6	13
60	Effective low-Mach number improvement for upwind schemes. <i>Computers and Mathematics With Applications</i> , 2018, 75, 3737-3755.	1.4	26
61	A simple, robust and efficient high-order accurate shock-capturing scheme for compressible flows: Towards minimalism. <i>Journal of Computational Physics</i> , 2018, 362, 131-162.	1.9	15
62	Modified multi-dimensional limiting process with enhanced shock stability on unstructured grids. <i>Computers and Fluids</i> , 2018, 161, 171-188.	1.3	15
63	Study of Flux Limiters to Minimize the Numerical Dissipation Based on Entropy-Consistent Scheme. <i>Journal of Mechanics</i> , 2018, 34, 135-149.	0.7	5
64	Cures for expansion shock and shock instability of Roe scheme based on momentum interpolation mechanism. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2018, 39, 455-466.	1.9	8
65	A study of the emergence of flux rope from the solar convection zone into the atmosphere by using a novel numerical method. <i>Physics of Plasmas</i> , 2018, 25, 090702.	0.7	2
66	An upwind CESE scheme for 2D and 3D MHD numerical simulation in general curvilinear coordinates. <i>Journal of Computational Physics</i> , 2018, 371, 850-869.	1.9	9
67	Mechanism Study of Shock Instability in Riemann-Solver-Based Shock-Capturing Scheme. <i>AIAA Journal</i> , 2018, 56, 3636-3651.	1.5	8
68	A cure for numerical shock instability in HLLC Riemann solver using antidiffusion control. <i>Computers and Fluids</i> , 2018, 174, 144-166.	1.3	41
69	A Mach-number-gradient-based shock switch for accurate computation of inviscid compressible flows. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	0
70	Affordable shock-stable item for Godunov-type schemes against carbuncle phenomenon. <i>Journal of Computational Physics</i> , 2018, 373, 662-672.	1.9	41
71	Mechanism-Derived Shock Instability Elimination for Riemann-Solver-Based Shock-Capturing Scheme. <i>AIAA Journal</i> , 2018, 56, 3652-3666.	1.5	2
72	A New Robust Carbuncle-Free Roe Scheme for Strong Shock. <i>Journal of Scientific Computing</i> , 2018, 77, 1250-1277.	1.1	11

#	ARTICLE	IF	CITATIONS
73	A Group of CFL-Dependent Flux-Limiters to Control the Numerical Dissipation in Multi-stage Unsteady Calculation. <i>Journal of Scientific Computing</i> , 2019, 81, 186-216.	1.1	2
74	Towards an Accurate and Robust Rotated Riemann Solver for Hypersonic Flow Computations. <i>Lecture Notes in Electrical Engineering</i> , 2019, , 652-662.	0.3	0
75	A Robust Rotated-Hybrid Riemann Scheme for Multidimensional Inviscid Compressible Flows. <i>International Journal of Applied and Computational Mathematics</i> , 2019, 5, 1.	0.9	2
76	On Numerical Shock Instability of Low Diffusion Shock-Capturing Schemes. <i>Lecture Notes in Electrical Engineering</i> , 2019, , 643-651.	0.3	0
77	Effect of plate mounted between two wires in electric arc spraying. <i>Journal of Computational Science</i> , 2019, 32, 56-67.	1.5	5
78	A New MHD Model with a Rotated-hybrid Scheme and Solenoidality-preserving Approach. <i>Astrophysical Journal</i> , 2019, 871, 226.	1.6	19
79	A new formulation for two-wave Riemann solver accurate at contact interfaces. <i>Physics of Fluids</i> , 2019, 31, .	1.6	30
80	Strategies to cure numerical shock instability in the HLLEM Riemann solver. <i>International Journal for Numerical Methods in Fluids</i> , 2019, 89, 533-569.	0.9	15
81	A simple cure for numerical shock instability in the HLLC Riemann solver. <i>Journal of Computational Physics</i> , 2019, 378, 477-496.	1.9	39
82	Shock-Stable Roe Scheme Combining Entropy Fix and Rotated Riemann Solver. <i>AIAA Journal</i> , 2020, 58, 779-786.	1.5	6
83	AUSM-like expression of HLLC and its all-speed extension. <i>International Journal for Numerical Methods in Fluids</i> , 2020, 92, 246-265.	0.9	6
84	Cell-Centered Finite Volume Methods. <i>Atmosphere, Earth, Ocean & Space</i> , 2020, , 125-337.	0.4	1
85	Investigation of a trifold interaction mechanism of shock, vortex, and dust using a DG method in a two-fluid model framework. <i>Powder Technology</i> , 2020, 374, 121-138.	2.1	7
86	A New Rusanov-Type Solver with a Local Linear Solution Reconstruction for Numerical Modeling of White Dwarf Mergers by Means Massive Parallel Supercomputers. <i>Lobachevskii Journal of Mathematics</i> , 2020, 41, 1485-1491.	0.1	10
87	Advancement of Shock Capturing Computational Fluid Dynamics Methods. , 2020, , .		3
88	A Multistate Low-dissipation Advection Upstream Splitting Method for Ideal Magnetohydrodynamics. <i>Astrophysical Journal, Supplement Series</i> , 2020, 248, 12.	3.0	8
89	An improved Roe solver for high order reconstruction schemes. <i>Computers and Fluids</i> , 2020, 207, 104591.	1.3	9
90	On the development of a rotated-hybrid HLL/HLLC approximate Riemann solver for relativistic hydrodynamics. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 496, 2493-2505.	1.6	2

#	ARTICLE	IF	CITATIONS
91	Overcoming shock instability of the HLLC-type Riemann solvers. Journal of Computational Physics, 2020, 418, 109628.	1.9	5
92	A modal discontinuous Galerkin method for simulating dusty and granular gas flows in thermal non-equilibrium in the Eulerian framework. Journal of Computational Physics, 2020, 411, 109410.	1.9	17
93	An Adaptive Space-Time Edge-Based Solver for Two-Dimensional Unsteady Inviscid Flows. , 2020, , .		1
94	Hydrodynamics of core-collapse supernovae and their progenitors. Living Reviews in Solar Physics, 2020, 6, 1.	5.0	99
95	A robustness-enhanced method for Riemann solver. International Journal of Heat and Mass Transfer, 2021, 166, 120757.	2.5	0
96	A stable hybrid Roe scheme on triangular grids. International Journal for Numerical Methods in Fluids, 2021, 93, 978-1000.	0.9	4
97	Modified Path-conservative HLLC Scheme for Magnetohydrodynamic Solar Wind Simulations. Astrophysical Journal, Supplement Series, 2021, 253, 24.	3.0	5
99	Pressure Diffusion Item to Improve Shock Robustness for Low-Diffusion Upwind Schemes. , 2021, , .		0
100	Discrete Adjoint-Based Aerodynamic Shape Optimization Framework for Natural Laminar Flows. AIAA Journal, 0, , 1-16.	1.5	4
101	Elucidation of Mechanism for Reducing Porosity in Electric Arc Spraying Through CFD. Lecture Notes in Computer Science, 2018, , 418-428.	1.0	1
103	Towards an Accurate and Robust Roe-Type Scheme for All Mach Number Flows. Advances in Applied Mathematics and Mechanics, 2019, 11, 132-167.	0.7	10
104	Solving Shallow Water Wave Equation with HLL Scheme Based on Moving Grid. Advances in Applied Mathematics, 2021, 10, 3317-3324.	0.0	0
105	On a simple verification test of codes for modelling of magnetohydrodynamic turbulence. Journal of Physics: Conference Series, 2021, 2028, 012003.	0.3	0
106	Further studies on numerical instabilities of Godunov-type schemes for strong shocks. Computers and Mathematics With Applications, 2021, 102, 65-86.	1.4	5
108	SOME ACOUSTIC-TRANSPORT SPLITTING SCHEMES FOR TWO-PHASE COMPRESSIBLE FLOWS. , 2016, , .		0
110	Preliminary study on compressible gas-liquid two-phase flow computation for ultra-high-pressure fuel injection process. Transactions of the JSME (in Japanese), 2019, 85, 18-00332-18-00332.	0.1	1
111	On a Modification of the Rusanov Solver for the Equations of Special Relativistic Magnetic Hydrodynamics. Journal of Applied and Industrial Mathematics, 2020, 14, 524-531.	0.1	2
112	Construction of hybrid numerical flows that suppress the development of shock-wave instability. Keldysh Institute Preprints, 2020, , 1-12.	0.1	0

#	ARTICLE	IF	CITATIONS
113	Numerical Flux Functions for Ideal Gases. , 2020, , 21-67.		0
114	An hybrid numerical flux for supersonic flows with application to rocket nozzles. , 2020, , .		3
115	An improvement of the AUSMDV ⁺ scheme on unstructured grids. Shock Waves, 2021, 31, 901-927.	1.0	2
116	Validation of a High-Fidelity Supersonic Parachute Inflation Dynamics Model and Best Practice. , 2022, , .		8
117	A shock-stable HLLM scheme with improved contact resolving capability for compressible Euler flows. Journal of Computational Physics, 2022, 453, 110947.	1.9	4
118	Investigation of a Rotated Riemann Solver in Cell-Centered Lagrangian Schemes. SSRN Electronic Journal, 0, , .	0.4	0
119	The Efficiency of Hydrodynamic Code on Intel Xeon Scalable Architecture. , 2021, , .		0
120	Numerical simulation and entropy dissipative cure of the carbuncle instability for the shallow water circular hydraulic jump. International Journal for Numerical Methods in Fluids, 2022, 94, 655-677.	0.9	2
121	A Hybrid Numerical Flux for Solving the Problems of a Supersonic Flow Around Solid Bodies. Mathematical Models and Computer Simulations, 2021, 13, 1116-1121.	0.1	2
122	An effective all-speed Riemann solver with self-similar internal structure for Euler system. Computers and Fluids, 2022, 239, 105392.	1.3	1
123	An Accurate and Robust Hybrid Hllc Riemann Solver on Triangular Grids. SSRN Electronic Journal, 0, , .	0.4	0
124	Development of a Shock-Stable and Contact-Preserving Scheme for Multidimensional Euler Equations. AIAA Journal, 2022, 60, 5232-5248.	1.5	5
125	A Piecewise-Linear Reconstruction to Reduce the Dissipation of the HLL Method in Solving the Gas Dynamics Equations. Numerical Analysis and Applications, 2022, 15, 112-124.	0.2	2
126	Roles of Multi-Dimensional Velocity Components in All-Speed Numerical Flux SLAU. , 2022, , .		0
127	OMPEGAS: Optimized Relativistic Code for Multicore Architecture. Mathematics, 2022, 10, 2546.	1.1	2
128	Development of a carbuncle-free and low-dissipation Roe-type scheme: Applications to multidimensional Euler flows. Communications in Nonlinear Science and Numerical Simulation, 2023, 116, 106798.	1.7	2
129	Using a Combination of Godunov and Rusanov Solvers Based on the Piecewise Parabolic Reconstruction of Primitive Variables for Numerical Simulation of Supernovae Ia Type Explosion. Lobachevskii Journal of Mathematics, 2022, 43, 1545-1559.	0.1	1
130	An improved fifth-order nonlinear spectral difference scheme for hyperbolic conservation laws. Computers and Fluids, 2022, , 105730.	1.3	0

#	ARTICLE	IF	CITATIONS
131	Hybrid numerical flux for solving the problems of supersonic flow of solid bodies. AIP Conference Proceedings, 2022, , .	0.3	0
132	Efficient implementation of high-order WENO schemes with sharing function for solving Euler equations. Computers and Fluids, 2023, 251, 105746.	1.3	1
133	A rotated lattice Boltzmann flux solver with improved stability for the simulation of compressible flows with intense shock waves at high Mach number. Computers and Mathematics With Applications, 2023, 132, 18-31.	1.4	7
134	On the influence of the choice of the numerical flow on the solution of problems with shock waves by the discontinuous Galerkin method. Keldysh Institute Preprints, 2022, , 1-21.	0.1	1
135	A High-Order Hybrid Numerical Scheme for Hypersonic Flow Over A Blunt Body. Flow, Turbulence and Combustion, 0, , .	1.4	0
136	Review of the High-Order TENO Schemes for Compressible Gas Dynamics and Turbulence. Archives of Computational Methods in Engineering, 2023, 30, 2493-2526.	6.0	12
138	Rotated-hybrid Riemann solver for all-speed flows. Journal of Computational and Applied Mathematics, 2023, 427, 115129.	1.1	2
139	Numerical investigation of Mach number consistent Roe solvers for the Euler equations of gas dynamics. Journal of Computational Physics, 2023, 477, 111947.	1.9	2
140	Stability effect of multidimensional velocity components in numerical flux $SLAU$. International Journal for Numerical Methods in Fluids, 2023, 95, 992-1010.	0.9	1
142	Using a Combination of Roe and Rusanov Schemes for the Numerical Solution of the Equations of Magnetohydrodynamics in the Problems of Cosmic Plasma. Journal of Applied and Industrial Mathematics, 2022, 16, 596-605.	0.1	0
147	Numerical simulation of supernovae Ia type explosion with intel cascade lake processors. AIP Conference Proceedings, 2023, , .	0.3	0
155	The Effect of Data Structuring on the Parallel Efficiency of the HydroBox3D Relativistic Code. Lecture Notes in Computer Science, 2023, , 271-284.	1.0	0
158	Assessment of Projection-Based Model Order Reduction for a Benchmark Hypersonic Flow Problem. , 2024, , .		0