

Dinshaw S Balsara

List of Publications by Year in descending order

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29
papers

1,580
citations

471509

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501196

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all docs

29
docs citations

29
times ranked

718
citing authors

#	ARTICLE	IF	CITATIONS
1	Curl Constraint-Preserving Reconstruction and the Guidance it Gives for Mimetic Scheme Design. Communications on Applied Mathematics and Computation, 2023, 5, 235-294.	1.7	5
2	Efficient WENO-Based Prolongation Strategies for Divergence-Preserving Vector Fields. Communications on Applied Mathematics and Computation, 2023, 5, 428-484.	1.7	2
3	An Optimized CPML Formulation for High Order FVTD Schemes for CED. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2021, 6, 183-200.	2.2	2
4	Making a Synthesis of FDTD and DGTD Schemes for Computational Electromagnetics. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2020, 5, 99-118.	2.2	10
5	A simplified Cauchy-Kowalewskaya procedure for the local implicit solution of generalized Riemann problems of hyperbolic balance laws. Computers and Fluids, 2020, 202, 104490.	2.5	7
6	Globally constraint-preserving FR/DG scheme for Maxwell's equations at all orders. Journal of Computational Physics, 2019, 394, 298-328.	3.8	15
7	General relativistic numerical simulation of sub-Keplerian transonic accretion flows on to rotating black holes: Kerr space-time. Monthly Notices of the Royal Astronomical Society, 2019, 482, 3636-3645.	4.4	10
8	von Neumann stability analysis of globally constraint-preserving DGTD and PNPM schemes for the Maxwell equations using multidimensional Riemann solvers. Journal of Computational Physics, 2019, 376, 1108-1137.	3.8	16
9	On the linear stability of sheared and magnetized jets without current sheets - relativistic case. Monthly Notices of the Royal Astronomical Society, 2018, 474, 3954-3966.	4.4	17
10	Computational electrodynamics in material media with constraint-preservation, multidimensional Riemann solvers and sub-cell resolution - Part II, higher order FVTD schemes. Journal of Computational Physics, 2018, 354, 613-645.	3.8	22
11	Multidimensional Riemann problem with self-similar internal structure - part III - a multidimensional analogue of the HLLI Riemann solver for conservative hyperbolic systems. Journal of Computational Physics, 2017, 346, 25-48.	3.8	47
12	Computational electrodynamics in material media with constraint-preservation, multidimensional Riemann solvers and sub-cell resolution - Part I, second-order FVTD schemes. Journal of Computational Physics, 2017, 349, 604-635.	3.8	22
13	Higher-order accurate space-time schemes for computational astrophysics - Part I: finite volume methods. Living Reviews in Solar Physics, 2017, 3, 2.	11.4	39
14	General relativistic numerical simulation of sub-Keplerian transonic accretion flows on to black holes: Schwarzschild space-time. Monthly Notices of the Royal Astronomical Society, 2017, 472, 542-549.	4.4	8
15	A high-order relativistic two-fluid electrodynamic scheme with consistent reconstruction of electromagnetic fields and a multidimensional Riemann solver for electromagnetism. Journal of Computational Physics, 2016, 318, 169-200.	3.8	40
16	An efficient class of WENO schemes with adaptive order. Journal of Computational Physics, 2016, 326, 780-804.	3.8	180
17	Divergence-Free WENO Reconstruction-Based Finite Volume Scheme for Solving Ideal MHD Equations on Triangular Meshes. Communications in Computational Physics, 2016, 19, 841-880.	1.7	27
18	Multidimensional Riemann problem with self-similar internal structure. Part I - Application to hyperbolic conservation laws on structured meshes. Journal of Computational Physics, 2014, 277, 163-200.	3.8	90

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19	A two-dimensional HLLC Riemann solver for conservation laws: Application to Euler and magnetohydrodynamic flows. <i>Journal of Computational Physics</i> , 2012, 231, 7476-7503.	3.8	141
20	Two-fluid ambipolar diffusion for molecular clouds with realistic heating and cooling. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 415, 3681-3692.	4.4	14
21	Multidimensional HLLC Riemann solver: Application to Euler and magnetohydrodynamic flows. <i>Journal of Computational Physics</i> , 2010, 229, 1970-1993.	3.8	164
22	Divergence-free reconstruction of magnetic fields and WENO schemes for magnetohydrodynamics. <i>Journal of Computational Physics</i> , 2009, 228, 5040-5056.	3.8	135
23	A two-fluid method for ambipolar diffusion. <i>Monthly Notices of the Royal Astronomical Society</i> , 2008, 389, 1058-1073.	4.4	22
24	Arbitrary High-Order Discontinuous Galerkin Schemes for the Magnetohydrodynamic Equations. <i>Journal of Scientific Computing</i> , 2007, 30, 441-464.	2.3	37
25	Simulations of mixed-morphology supernova remnants with anisotropic thermal conduction. <i>Monthly Notices of the Royal Astronomical Society</i> , 2006, 371, 1106-1112.	4.4	21
26	Second-Order accurate Schemes for Magnetohydrodynamics with Divergence-free Reconstruction. <i>Astrophysical Journal, Supplement Series</i> , 2004, 151, 149-184.	7.7	236
27	Numerical Study of Compressible Magnetohydrodynamic Turbulence in Two Dimensions. <i>Astrophysical Journal</i> , 2003, 594, 627-636.	4.5	19
28	Divergence-Free Adaptive Mesh Refinement for Magnetohydrodynamics. <i>Journal of Computational Physics</i> , 2001, 174, 614-648.	3.8	232
29	Von Neumann Stability Analysis of DG-Like and PNPM-Like Schemes for PDEs with Globally Curl-Preserving Evolution of Vector Fields. <i>Communications on Applied Mathematics and Computation</i> , 0, , 1.	1.7	0