

Dinshaw S Balsara

List of Publications by Year in descending order

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29
papers

1,580
citations

471509

17
h-index

501196

28
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all docs

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docs citations

29
times ranked

718
citing authors

#	ARTICLE	IF	CITATIONS
1	Second-order accurate Schemes for Magnetohydrodynamics with Divergence-free Reconstruction. <i>Astrophysical Journal, Supplement Series</i> , 2004, 151, 149-184.	7.7	236
2	Divergence-Free Adaptive Mesh Refinement for Magnetohydrodynamics. <i>Journal of Computational Physics</i> , 2001, 174, 614-648.	3.8	232
3	An efficient class of WENO schemes with adaptive order. <i>Journal of Computational Physics</i> , 2016, 326, 780-804.	3.8	180
4	Multidimensional HLLC Riemann solver: Application to Euler and magnetohydrodynamic flows. <i>Journal of Computational Physics</i> , 2010, 229, 1970-1993.	3.8	164
5	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
6	Divergence-free reconstruction of magnetic fields and WENO schemes for magnetohydrodynamics. <i>Journal of Computational Physics</i> , 2009, 228, 5040-5056.	3.8	135
7	Multidimensional Riemann problem with self-similar internal structure. Part I – Application to hyperbolic conservation laws on structured meshes. <i>Journal of Computational Physics</i> , 2014, 277, 163-200.	3.8	90
8	Multidimensional Riemann problem with self-similar internal structure – part III – a multidimensional analogue of the HLLI Riemann solver for conservative hyperbolic systems. <i>Journal of Computational Physics</i> , 2017, 346, 25-48.	3.8	47
9	A high-order relativistic two-fluid electrodynamic scheme with consistent reconstruction of electromagnetic fields and a multidimensional Riemann solver for electromagnetism. <i>Journal of Computational Physics</i> , 2016, 318, 169-200.	3.8	40
10	Higher-order accurate space-time schemes for computational astrophysics – Part I: finite volume methods. <i>Living Reviews in Solar Physics</i> , 2017, 3, 2.	11.4	39
11	Arbitrary High-Order Discontinuous Galerkin Schemes for the Magnetohydrodynamic Equations. <i>Journal of Scientific Computing</i> , 2007, 30, 441-464.	2.3	37
12	Divergence-Free WENO Reconstruction-Based Finite Volume Scheme for Solving Ideal MHD Equations on Triangular Meshes. <i>Communications in Computational Physics</i> , 2016, 19, 841-880.	1.7	27
13	A two-fluid method for ambipolar diffusion. <i>Monthly Notices of the Royal Astronomical Society</i> , 2008, 389, 1058-1073.	4.4	22
14	Computational electrodynamics in material media with constraint-preservation, multidimensional Riemann solvers and sub-cell resolution – Part I, second-order FVTD schemes. <i>Journal of Computational Physics</i> , 2017, 349, 604-635.	3.8	22
15	Computational electrodynamics in material media with constraint-preservation, multidimensional Riemann solvers and sub-cell resolution – Part II, higher order FVTD schemes. <i>Journal of Computational Physics</i> , 2018, 354, 613-645.	3.8	22
16	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
17	Numerical Study of Compressible Magnetohydrodynamic Turbulence in Two Dimensions. <i>Astrophysical Journal</i> , 2003, 594, 627-636.	4.5	19
18	On the linear stability of sheared and magnetized jets without current sheets – relativistic case. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 474, 3954-3966.	4.4	17

#	ARTICLE	IF	CITATIONS
19	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
20	Globally constraint-preserving FR/DG scheme for Maxwell's equations at all orders. Journal of Computational Physics, 2019, 394, 298-328.	3.8	15
21	Two-fluid ambipolar diffusion for molecular clouds with realistic heating and cooling. Monthly Notices of the Royal Astronomical Society, 2011, 415, 3681-3692.	4.4	14
22	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
23	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
24	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
25	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
26	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
27	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
28	Efficient WENO-Based Prolongation Strategies for Divergence-Preserving Vector Fields. Communications on Applied Mathematics and Computation, 2023, 5, 428-484.	1.7	2
29	Von Neumann Stability Analysis of DG-Like and PNPM-Like Schemes for PDEs with Globally Curl-Preserving Evolution of Vector Fields. Communications on Applied Mathematics and Computation, 0, , 1.	1.7	0