Daniel R Reynolds

List of Publications by Year
in descending order

30 papers	1,355 citations	623734 14 h-index	552781 26 g-index
31 all docs	31 docs citations	31 times ranked	1573 citing authors

#	Article	IF	Citations
1	ENZO: AN ADAPTIVE MESH REFINEMENT CODE FOR ASTROPHYSICS. Astrophysical Journal, Supplement Series, 2014, 211, 19.	7.7	615
2	Multiphysics simulations. International Journal of High Performance Computing Applications, 2013, 27, 4-83.	3.7	244
3	Cosmological radiative transfer comparison project Ã¢Â€Â“ II. The radiation-hydrodynamic tests. Monthly Notices of the Royal Astronomical Society, 2009, 400, 1283-1316.	4.4	94
4	FULLY COUPLED SIMULATION OF COSMIC REIONIZATION. II. RECOMBINATIONS, CLUMPING FACTORS, AND THE PHOTON BUDGET FOR REIONIZATION. Astrophysical Journal, 2014, 789, 149.	4.5	48
5	A fully implicit numerical method for single-fluid resistive magnetohydrodynamics. Journal of Computational Physics, 2006, 219, 144-162.	3.8	46
6	ENZO: An Adaptive Mesh Refinement Code for Astrophysics (Version 2.6). Journal of Open Source Software, 2019, 4, 1636.	4.6	44
7	Implicitâ€“explicit (IMEX) Rungeâ€“Kutta methods for non-hydrostatic atmospheric models. Geoscientific Model Development, 2018, 11, 1497-1515.	3.6	33
8	FULLY COUPLED SIMULATION OF COSMIC REIONIZATION. I. NUMERICAL METHODS AND TESTS. Astrophysical Journal, Supplement Series, 2015, 216, 16.	7.7	30
9	Implicit solvers for large-scale nonlinear problems. Journal of Physics: Conference Series, 2006, 46, 433-442.	0.4	28
10	Enabling New Flexibility in the SUNDIALS Suite of Nonlinear and Differential/Algebraic Equation Solvers. ACM Transactions on Mathematical Software, 2022, 48, 1-24.	2.9	28
11	Self-consistent solution of cosmological radiation-hydrodynamics and chemical ionization. Journal of Computational Physics, 2009, 228, 6833-6854.	3.8	19
12	Further development of efficient and accurate time integration schemes for meteorological models. Journal of Computational Physics, 2019, 376, 817-837.	3.8	19
13	Operator-Based Preconditioning of Stiff Hyperbolic Systems. SIAM Journal of Scientific Computing, 2010, 32, 150-170.	2.8	18
14	Impact and importance of hyperdiffusion on the spectral element method: A linear dispersion analysis. Journal of Computational Physics, 2018, 375, 427-446.	3.8	16
15	Evaluation of Implicitâ€Explicit Additive Rungeâ€Kutta Integrators for the HOMMEâ€NH Dynamical Core. Journal of Advances in Modeling Earth Systems, 2019, 11, 4228-4244.	3.8	11
16	Enabling GPU accelerated computing in the SUNDIALS time integration library. Parallel Computing, 2021, 108, 102836.	2.1	11
17	A fully implicit Newtonâ€“Krylovâ€“Schwarz method for tokamak magnetohydrodynamics: Jacobian construction and preconditioner formulation. Computational Science & Discovery, 2012, 5, 014003.	1.5	8
18	A New Class of High-Order Methods for Multirate Differential Equations. SIAM Journal of Scientific Computing, 2020, 42, A1245-A1268.	2.8	8

#	Article	IF	Citations
19	Efficient and automatic implementation of the adjoint state method. ACM Transactions on Mathematical Software, 2002, 28, 22-44.	2.9	7
20	Computational modeling of vibration damping in SMA wires. Continuum Mechanics and Thermodynamics, 2004, 16, 495-514.	2.2	6
21	Implicit-Explicit Multirate Infinitesimal GARK Methods. SIAM Journal of Scientific Computing, 2021, 43, A3082-A3113.	2.8	6
22	On thermodynamic active control of shape memory alloy wires. Systems and Control Letters, 2003, 48, 211-219.	2.3	3
23	On the modeling and computations of nonlinear thermodynamics in SMA wires. Computer Methods in Applied Mechanics and Engineering, 2006, 196, 180-191.	6.6	3
24	Cyclically parallelized treecode for fast computations of electrostatic interactions on molecular surfaces. Computer Physics Communications, 2021, 260, 107742.	7.5	3
25	Sparse Jacobian Construction for Mapped Grid Visco-Resistive Magnetohydrodynamics. Lecture Notes in Computational Science and Engineering, 2012, , 11-21.	0.3	2
26	Thermal stabilization of shape memory alloy wires. , 2003, 5049, 24.		1
27	On the asymptotically stochastic computational modeling of microstructures. Future Generation Computer Systems, 2004, 20, 409-424.	7.5	1
28	Cosmological Radiation Hydrodynamics with Enzo. , 2009, , .		1
29	Modeling early galaxies using radiation hydrodynamics. , 2011, , .		0
30	Filters for Improvement of Multiscale Data from Atomistic Simulations. Multiscale Modeling and Simulation, 2017, 15, 1-28.	1.6	0