A M Dimits

List of Publications by Year
in descending order

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49 papers	2,717 citations	304743 22 h-index	233421 45 g-index
49 all docs	49 docs citations	49 times ranked	1597 citing authors

#	Article	IF	Citations
1	Nonlinear kinetic simulation study of the ionâ€“ion streaming instability in single- and multi-ion species plasmas. Physics of Plasmas, 2021, 28, 022105.	1.9	0
2	Turbulent mixing and transition criteria of flows induced by hydrodynamic instabilities. Physics of Plasmas, 2019, 26, .	1.9	154
3	A multispecies, multifluid model for laserâ€“induced counterstreaming plasma simulations. Computers and Fluids, 2019, 186, 38-57.	2.5	13
4	Linearized Coulomb Collision Operator for Simulation of Interpenetrating Plasma Streams. IEEE Transactions on Plasma Science, 2019, 47, 2074-2080.	1.3	3
5	Role of density gradient driven trapped electron mode turbulence in the H-mode inner core with electron heating. Physics of Plasmas, 2016, 23, 056112.	1.9	33
6	Connecting Collisionless Landau Fluid Closures to Collisional Plasma Physics Models. Contributions To Plasma Physics, 2016, 56, 504-510.	1.1	9
7	One-dimensional particle simulations of Knudsen-layer effects on D-T fusion. Physics of Plasmas, 2014, 21, .	1.9	15
8	A fast non-Fourier method for Landau-fluid operators. Physics of Plasmas, 2014, 21, .	1.9	33
9	A PIC-Fluid Hybrid Algorithm for Multiscale Simulations of Laser-Plasma Interactions. IEEE Transactions on Plasma Science, 2014, 42, 1335-1338.	1.3	0
10	Multilevel Monte Carlo simulation of Coulomb collisions. Journal of Computational Physics, 2014, 274, 140-157.	3.8	22
11	Higher-order time integration of Coulomb collisions in a plasma using Langevin equations. Journal of Computational Physics, 2013, 242, 561-580.	3.8	15
12	A grid-based binary model for coulomb collisions in plasmas. Journal of Computational Physics, 2013, 234, 33-43.	3.8	13
13	Gyro-fluid and two-fluid theory and simulations of edge-localized-modes. Physics of Plasmas, 2013, 20, .	1.9	42
14	Gyrokinetic equations for strong-gradient regions. Physics of Plasmas, 2012, 19, 022504.	1.9	12
15	Corrections to â€œTime-Step Considerations in Particle Simulation Algorithms for Coulomb Collisions in Plasmasâ€•[Sep 10 2394-2406]. IEEE Transactions on Plasma Science, 2011, 39, 624-624.	1.3	0
16	Time-Step Considerations in Particle Simulation Algorithms for Coulomb Collisions in Plasmas. IEEE Transactions on Plasma Science, 2010, 38, 2394-2406.	1.3	25
17	Gyrokinetic equations in an extended ordering. Physics of Plasmas, 2010, 17, 055901.	1.9	18
18	Understanding the accuracy of Nanbuâ€™s numerical Coulomb collision operator. Journal of Computational Physics, 2009, 228, 4881-4892.	3.8	16

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19	Particle simulation of Coulomb collisions: Comparing the methods of Takizuka & Abe and Nanbu. Journal of Computational Physics, 2008, 227, 4308-4329.	3.8	49
20	A Hybrid Method for Accelerated Simulation of Coulomb Collisions in a Plasma. Multiscale Modeling and Simulation, 2008, 7, 865-887.	1.6	23
21	Verification of gyrokinetic Îf simulations of electron temperature gradient turbulence. Physics of Plasmas, 2007, 14, .	1.9	31
22	Characterizing electron temperature gradient turbulence via numerical simulation. Physics of Plasmas, 2006, 13, 122306.	1.9	99
23	Discrete particle noise in particle-in-cell simulations of plasma microturbulence. Physics of Plasmas, 2005, 12, 122305.	1.9	77
24	A comparative study of the turbulent Rayleighâ€“Taylor instability using high-resolution three-dimensional numerical simulations: The Alpha-Group collaboration. Physics of Fluids, 2004, 16, 1668-1693.	4.0	381
25	Progress in understanding turbulent mixing induced by Rayleighâ€“Taylor and Richtmyerâ€“Meshkov instabilities. Physics of Plasmas, 2003, 10, 1883-1896.	1.9	69
26	Simulations of turbulent transport with kinetic electrons and electromagnetic effects. Nuclear Fusion, 2003, 43, 1121-1127.	3.5	46
27	Kinetic electron closures for electromagnetic simulation of drift and shear-AlfvÃ©n waves. I.. Physics of Plasmas, 2002, 9, 251-262.	1.9	20
28	Kinetic electron closures for electromagnetic simulation of drift and shear-AlfvÃ©n waves. II. Physics of Plasmas, 2002, 9, 1915-1924.	1.9	11
29	Three-dimensional simulation of a Richtmyerâ€“Meshkov instability with a two-scale initial perturbation. Physics of Fluids, 2002, 14, 3692-3709.	4.0	85
30	Parameter dependences of ion thermal transport due to toroidal ITG turbulence. Nuclear Fusion, 2001, 41, 1725-1732.	3.5	37
31	Comparisons and physics basis of tokamak transport models and turbulence simulations. Physics of Plasmas, 2000, 7, 969-983.	1.9	856
32	Simulation of ion temperature gradient turbulence in tokamaks. Nuclear Fusion, 2000, 40, 661-666.	3.5	40
33	Implicit, partially linearized, electromagnetic particle simulation of plasma drift-wave turbulence. Physical Review E, 1997, 56, 2151-2160.	2.1	9
34	Scalings of Ion-Temperature-Gradient-Driven Anomalous Transport in Tokamaks. Physical Review Letters, 1996, 77, 71-74.	7.8	199
35	Implicit-moment, partially linearized particle simulation of kinetic plasma phenomena. Physical Review E, 1996, 53, 2708-2716.	2.1	3
36	Collision operators for partially linearized particle simulation codes. Physical Review E, 1994, 49, 709-721.	2.1	52

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37	Gyrokinetic simulations of EÃ—B velocityâ€shear effects on ionâ€temperatureâ€gradient modes. Physics of Fluids B, 1993, 5, 2967-2980.	1.7	45
38	Fluid simulations of tokamak turbulence in quasiballooning coordinates. Physical Review E, 1993, 48, 4070-4079.	2.1	47
39	Gyroaveraged equations for both the gyrokinetic and driftâ€kinetic regimes. Physics of Fluids B, 1992, 4, 274-277.	1.7	31
40	Threeâ€dimensional simulation of âˆ‡Tiâ€driven turbulence and transport. Physics of Fluids B, 1991, 3, 1937-1944.	1.7	20
41	Transport barrier in ion temperature gradient driven turbulence. Physics of Fluids B, 1991, 3, 1381-1385.	1.7	2
42	Nonlinear mechanisms for drift wave saturation and induced particle transport. Physics of Fluids B, 1991, 3, 1557-1569.	1.7	6
43	Longâ€time evolution of the nonlinear thermal instability: What phase survives. Physics of Fluids B, 1991, 3, 1420-1424.	1.7	12
44	Ionâ€temperatureâ€gradientâ€driven turbulence and transport in a sheared magnetic field. Physics of Fluids B, 1991, 3, 620-626.	1.7	10
45	Saturation of drift instabilities by EÃ—B advection of resonant electrons. Physics of Fluids B, 1990, 2, 1768-1774.	1.7	6
46	Formation of streamers in plasma with an ion temperature gradient. Physics of Fluids B, 1990, 2, 2591-2599.	1.7	9
47	Stochastic particle acceleration and statistical closures. Journal of Statistical Physics, 1986, 44, 879-906.	1.2	4
48	Preliminary results of electron cyclotron heating experiments on the PDX Tokamak. Plasma Physics and Controlled Fusion, 1984, 26, 265-267.	2.1	9
49	Helicon full-wave modeling with scrape-off-layer turbulence on the DIII-D tokamak. Nuclear Fusion, 0, , .	3.5	6