A M Dimits

List of Publications by Year
in descending order

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	Comparisons and physics basis of tokamak transport models and turbulence simulations. Physics of Plasmas, 2000, 7, 969-983.	1.9	856
2	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
3	Scalings of Ion-Temperature-Gradient-Driven Anomalous Transport in Tokamaks. Physical Review Letters, 1996, 77, 71-74.	7.8	199
4	Turbulent mixing and transition criteria of flows induced by hydrodynamic instabilities. Physics of Plasmas, 2019, 26, .	1.9	154
5	Characterizing electron temperature gradient turbulence via numerical simulation. Physics of Plasmas, 2006, 13, 122306.	1.9	99
6	Three-dimensional simulation of a Richtmyerâ€"Meshkov instability with a two-scale initial perturbation. Physics of Fluids, 2002, 14, 3692-3709.	4.0	85
7	Discrete particle noise in particle-in-cell simulations of plasma microturbulence. Physics of Plasmas, 2005, 12, 122305.	1.9	77
8	Progress in understanding turbulent mixing induced by Rayleighâ€"Taylor and Richtmyerâ€"Meshkov instabilities. Physics of Plasmas, 2003, 10, 1883-1896.	1.9	69
9	Collision operators for partially linearized particle simulation codes. Physical Review E, 1994, 49, 709-721.	2.1	52
10	Particle simulation of Coulomb collisions: Comparing the methods of Takizuka & Abe and Nanbu. Journal of Computational Physics, 2008, 227, 4308-4329.	3.8	49
11	Fluid simulations of tokamak turbulence in quasiballooning coordinates. Physical Review E, 1993, 48, 4070-4079.	2.1	47
12	Simulations of turbulent transport with kinetic electrons and electromagnetic effects. Nuclear Fusion, 2003, 43, 1121-1127.	3.5	46
13	Gyrokinetic simulations of EÃ—B velocityâ€shear effects on ionâ€temperatureâ€gradient modes. Physics of Fluids B, 1993, 5, 2967-2980.	1.7	45
14	Gyro-fluid and two-fluid theory and simulations of edge-localized-modes. Physics of Plasmas, 2013, 20, .	1.9	42
15	Simulation of ion temperature gradient turbulence in tokamaks. Nuclear Fusion, 2000, 40, 661-666.	3.5	40
16	Parameter dependences of ion thermal transport due to toroidal ITG turbulence. Nuclear Fusion, 2001, 41, 1725-1732.	3.5	37
17	A fast non-Fourier method for Landau-fluid operators. Physics of Plasmas, 2014, 21, .	1.9	33
18	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

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19	Gyroaveraged equations for both the gyrokinetic and drift‐kinetic regimes. Physics of Fluids B, 1992, 4, 274-277.	1.7	31
20	Verification of gyrokinetic δf simulations of electron temperature gradient turbulence. Physics of Plasmas, 2007, 14, .	1.9	31
21	Time-Step Considerations in Particle Simulation Algorithms for Coulomb Collisions in Plasmas. IEEE Transactions on Plasma Science, 2010, 38, 2394-2406.	1.3	25
22	A Hybrid Method for Accelerated Simulation of Coulomb Collisions in a Plasma. Multiscale Modeling and Simulation, 2008, 7, 865-887.	1.6	23
23	Multilevel Monte Carlo simulation of Coulomb collisions. Journal of Computational Physics, 2014, 274, 140-157.	3.8	22
24	Three‐dimensional simulation of ∇T_i‐driven turbulence and transport. Physics of Fluids B, 1991, 3, 1937-1944.	1.7	20
25	Kinetic electron closures for electromagnetic simulation of drift and shear-Alfvén waves. I.. Physics of Plasmas, 2002, 9, 251-262.	1.9	20
26	Gyrokinetic equations in an extended ordering. Physics of Plasmas, 2010, 17, 055901.	1.9	18
27	Understanding the accuracy of Nanbu's numerical Coulomb collision operator. Journal of Computational Physics, 2009, 228, 4881-4892.	3.8	16
28	Higher-order time integration of Coulomb collisions in a plasma using Langevin equations. Journal of Computational Physics, 2013, 242, 561-580.	3.8	15
29	One-dimensional particle simulations of Knudsen-layer effects on D-T fusion. Physics of Plasmas, 2014, 21, .	1.9	15
30	A grid-based binary model for coulomb collisions in plasmas. Journal of Computational Physics, 2013, 234, 33-43.	3.8	13
31	A multispecies, multifluid model for laser–induced counterstreaming plasma simulations. Computers and Fluids, 2019, 186, 38-57.	2.5	13
32	Long‐time evolution of the nonlinear thermal instability: What phase survives. Physics of Fluids B, 1991, 3, 1420-1424.	1.7	12
33	Gyrokinetic equations for strong-gradient regions. Physics of Plasmas, 2012, 19, 022504.	1.9	12
34	Kinetic electron closures for electromagnetic simulation of drift and shear-Alfvén waves. II. Physics of Plasmas, 2002, 9, 1915-1924.	1.9	11
35	Ion‐temperature‐gradient‐driven turbulence and transport in a sheared magnetic field. Physics of Fluids B, 1991, 3, 620-626.	1.7	10
36	Preliminary results of electron cyclotron heating experiments on the PDX Tokamak. Plasma Physics and Controlled Fusion, 1984, 26, 265-267.	2.1	9

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37	Formation of streamers in plasma with an ion temperature gradient. Physics of Fluids B, 1990, 2, 2591-2599.	1.7	9
38	Implicit, partially linearized, electromagnetic particle simulation of plasma drift-wave turbulence. Physical Review E, 1997, 56, 2151-2160.	2.1	9
39	Connecting Collisionless Landau Fluid Closures to Collisional Plasma Physics Models. Contributions To Plasma Physics, 2016, 56, 504-510.	1.1	9
40	Saturation of drift instabilities by EÃ—B advection of resonant electrons. Physics of Fluids B, 1990, 2, 1768-1774.	1.7	6
41	Nonlinear mechanisms for drift wave saturation and induced particle transport. Physics of Fluids B, 1991, 3, 1557-1569.	1.7	6
42	Helicon full-wave modeling with scrape-off-layer turbulence on the DIII-D tokamak. Nuclear Fusion, 0, , .	3.5	6
43	Stochastic particle acceleration and statistical closures. Journal of Statistical Physics, 1986, 44, 879-906.	1.2	4
44	Implicit-moment, partially linearized particle simulation of kinetic plasma phenomena. Physical Review E, 1996, 53, 2708-2716.	2.1	3
45	Linearized Coulomb Collision Operator for Simulation of Interpenetrating Plasma Streams. IEEE Transactions on Plasma Science, 2019, 47, 2074-2080.	1.3	3
46	Transport barrier in ion temperature gradient driven turbulence. Physics of Fluids B, 1991, 3, 1381-1385.	1.7	2
47	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
48	A PIC-Fluid Hybrid Algorithm for Multiscale Simulations of Laser-Plasma Interactions. IEEE Transactions on Plasma Science, 2014, 42, 1335-1338.	1.3	0
49	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