

Daniel

List of Publications by Year in descending order

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82
papers

2,861
citations

279798

23
h-index

175258

52
g-index

85
all docs

85
docs citations

85
times ranked

1321
citing authors

#	ARTICLE	IF	CITATIONS
1	Trapped nonneutral plasmas, liquids, and crystals (the thermal equilibrium states). <i>Reviews of Modern Physics</i> , 1999, 71, 87-172.	45.6	633
2	Direct Observations of Structural Phase Transitions in Planar Crystallized Ion Plasmas. , 1998, 282, 1290-1293.		170
3	Theory of structural phase transitions in a trapped Coulomb crystal. <i>Physical Review Letters</i> , 1993, 71, 2753-2756.	7.8	166
4	Theory of electrostatic fluid modes in a cold spheroidal non-neutral plasma. <i>Physical Review Letters</i> , 1991, 66, 2076-2079.	7.8	128
5	Phase diagram of Yukawa systems near the one-component plasma limit revisited. <i>Journal of Chemical Physics</i> , 1996, 105, 7641-7647.	3.0	123
6	Computer simulation of ion clouds in a Penning trap. <i>Physical Review Letters</i> , 1988, 60, 511-514.	7.8	122
7	Vortex crystals from 2D Euler flow: Experiment and simulation. <i>Physics of Fluids</i> , 1999, 11, 905-914.	4.0	113
8	Inviscid damping of asymmetries on a two-dimensional vortex. <i>Physics of Fluids</i> , 2000, 12, 2397.	4.0	109
9	Electrostatic modes of ion-trap plasmas. <i>Physical Review A</i> , 1993, 48, 525-545.	2.5	105
10	Non-neutral ion plasmas and crystals, laser cooling, and atomic clocks*. <i>Physics of Plasmas</i> , 1994, 1, 1403-1414.	1.9	100
11	The phonon wake behind a charge moving relative to a two-dimensional plasma crystal. <i>Physics of Plasmas</i> , 2000, 7, 3895.	1.9	79
12	Negative Poisson's Ratios for Extreme States of Matter. <i>Science</i> , 2000, 288, 2018-2022.	12.6	74
13	Excitation of nonlinear electron acoustic waves. <i>Physics of Plasmas</i> , 2006, 13, 052303.	1.9	74
14	Collisional diffusion in a two-dimensional point vortex gas or a two-dimensional plasma. <i>Physics of Plasmas</i> , 2003, 10, 1338-1350.	1.9	66
15	Electron acoustic waves in pure ion plasmas. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	58
16	Precise control of the global rotation of strongly coupled ion plasmas in a Penning trap. <i>Physics of Plasmas</i> , 1998, 5, 1656-1663.	1.9	54
17	Normal modes of cold confined one-component plasmas. <i>Physical Review E</i> , 1996, 53, 5249-5267.	2.1	50
18	Equilibrium and dynamics of uniform density ellipsoidal non-neutral plasmas. <i>Physics of Fluids B</i> , 1993, 5, 295-324.	1.7	44

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19	Collisional transport in non-neutral plasmas. <i>Physics of Plasmas</i> , 1998, 5, 1688-1694.	1.9	42
20	Effect of correlations on the thermal equilibrium and normal modes of a non-neutral plasma. <i>Physical Review E</i> , 1996, 53, 5268-5290.	2.1	40
21	Direct observations of the structural phases of crystallized ion plasmas. <i>Physics of Plasmas</i> , 1999, 6, 1751-1758.	1.9	35
22	Theory and simulations of two-dimensional vortex motion driven by a background vorticity gradient. <i>Physics of Fluids</i> , 2001, 13, 1704-1723.	4.0	33
23	Stick-Slip Dynamics of a Stressed Ion Crystal. <i>Physical Review Letters</i> , 2001, 87, .	7.8	31
24	An electron-positron beam-plasma instability. <i>Physics of Plasmas</i> , 2001, 8, 4982-4994.	1.9	27
25	Electronic and Positronic Guiding-Center Drift Ions. <i>Physical Review Letters</i> , 2004, 92, 195002.	7.8	23
26	Two-dimensional bounce-averaged collisional particle transport in a single species non-neutral plasma. <i>Physics of Plasmas</i> , 1998, 5, 1305-1314.	1.9	22
27	Measurement of Screening Enhancement to Nuclear Reaction Rates using a Strongly Magnetized and Strongly Correlated Non-neutral Plasma. <i>Physical Review Letters</i> , 2005, 94, 025002.	7.8	22
28	Parallel velocity diffusion and slowing-down rate from long-range collisions in a magnetized plasma. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	21
29	Evolution of a Vortex in a Strain Flow. <i>Physical Review Letters</i> , 2016, 117, 235001.	7.8	19
30	Point vortex dynamics within a background vorticity patch. <i>Physics of Fluids</i> , 2001, 13, 677-691.	4.0	17
31	Antihydrogen formation from antiprotons in a pure positron plasma. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	15
32	Three designs for a magnetic trap that will simultaneously confine neutral atoms and a non-neutral plasma. <i>Physics of Plasmas</i> , 2001, 8, 4331-4339.	1.9	14
33	Theory and simulations of electrostatic field error transport. <i>Physics of Plasmas</i> , 2008, 15, 072112.	1.9	14
34	Thermal equilibrium of a cryogenic magnetized pure electron plasma. <i>Physics of Fluids</i> , 1986, 29, 11.	1.4	13
35	Measurement of correlation-enhanced collision rates using pure ion plasmas. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	10
36	Neoclassical transport and plasma mode damping caused by collisionless scattering across an asymmetric separatrix. <i>Physics of Plasmas</i> , 2011, 18, 062114.	1.9	10

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37	Nonlinear Trivelpiece-Gould waves: Frequency, functional form, and stability. <i>Physics of Plasmas</i> , 2015, 22, 102102.	1.9	10
38	First Test of Long-Range Collisional Drag via Plasma Wave Damping. <i>Physical Review Letters</i> , 2016, 117, 155001.	7.8	10
39	Equilibration rate of spin temperature in a strongly magnetized pure electron plasma. <i>Physics of Fluids B</i> , 1993, 5, 691-710.	1.7	9
40	Energy loss rate for guiding-center antihydrogen atoms. <i>Physics of Plasmas</i> , 2004, 11, 1240-1243.	1.9	9
41	Neoclassical Transport Caused by Collisionless Scattering across an Asymmetric Separatrix. <i>Physical Review Letters</i> , 2010, 105, 185003.	7.8	9
42	Broadening of the drumhead-mode spectrum due to in-plane thermal fluctuations of two-dimensional trapped ion crystals in a Penning trap. <i>Physical Review A</i> , 2020, 102, .	2.5	9
43	Displacement eigenmodes for cold-fluid and warm-fluid magnetized plasma oscillations. <i>Physics of Plasmas</i> , 2005, 12, 042107.	1.9	8
44	Cyclotron waves in a non-neutral plasma column. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	8
45	Parametric Instability Driven by Weakly Trapped Particles in Nonlinear Plasma Waves. <i>Physical Review Letters</i> , 2018, 121, 015001.	7.8	8
46	Trapped Particle Effects in the Parametric Instability of Near-Acoustic Plasma Waves. <i>Physical Review Letters</i> , 2018, 121, 235004.	7.8	7
47	Theory of vortex crystal formation in two-dimensional turbulence. <i>Physics of Plasmas</i> , 2000, 7, 1719-1722.	1.9	6
48	Excitation and Decay of Electron Acoustic Waves. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	6
49	Normal modes, rotational inertia, and thermal fluctuations of trapped ion crystals. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	6
50	Adiabatic behavior of an elliptical vortex in a time-dependent external strain flow. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	6
51	Vortex motion driven by a background vorticity gradient. , 1999, , .		5
52	Experimental study of the stability and dynamics of a two-dimensional ideal vortex under external strain. <i>Journal of Fluid Mechanics</i> , 2018, 848, 256-287.	3.4	5
53	Fluid and kinetic nonlinearities of near-acoustic plasma waves. <i>Physics of Plasmas</i> , 2019, 26, 122108.	1.9	5
54	Degenerate mixing of plasma waves on cold, magnetized single-species plasmas. <i>Physics of Plasmas</i> , 2011, 18, 102113.	1.9	4

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55	Effect of squeeze on electrostatic Trivelpiece-Gould wave damping. Physics of Plasmas, 2014, 21, .	1.9	4
56	Non-linear plasma wave decay to longer wavelength. AIP Conference Proceedings, 2015, , .	0.4	4
57	Bounce harmonic Landau damping of plasma waves. Physics of Plasmas, 2016, 23, .	1.9	4
58	Measurements of correlations enhanced collision rates in the mildly correlated regime ($\hat{r} \approx 1/4$). Physics of Plasmas, 2017, 24, 092118.	1.9	4
59	Superbanana transport in the collisional heating of a plasma column forced across a squeeze potential. Physics of Plasmas, 2017, 24, 112120.	1.9	4
60	Measurements of long-range enhanced collisional velocity drag through plasma wave damping. Physics of Plasmas, 2018, 25, 055701.	1.9	4
61	Instability of nonlinear Trivelpiece-Gould waves. II. Weakly trapped particles. Physics of Plasmas, 2019, 26, .	1.9	4
62	Instability of nonlinear Trivelpiece-Gould waves I: Wave degeneracies. Physics of Plasmas, 2019, 26, 102111.	1.9	4
63	Instability of an electron-plasma shear layer in an externally imposed strain flow. Physics of Plasmas, 2020, 27, 042101.	1.9	4
64	Electron Acoustic Waves in Pure Ion Plasmas. , 2009, , .		3
65	Electrostatic waves and instabilities in multispecies nonneutral plasmas. Physics of Plasmas, 2010, 17, 112115.	1.9	3
66	Bernstein modes in a non-neutral plasma column. Physics of Plasmas, 2018, 25, 052119.	1.9	3
67	Theory and Simulation of Neoclassical Transport Processes, with Local Trapping. , 2009, , .		2
68	Equilibration of the planar modes of ultracold two-dimensional ion crystals in a Penning trap. Physical Review A, 2021, 104, .	2.5	2
69	Inviscid damping of elliptical perturbations on a 2D vortex. , 1999, , .		1
70	A magnetic trap for simultaneous confinement of neutral atoms and a non-neutral plasma. AIP Conference Proceedings, 2002, , .	0.4	1
71	Trapping and Frequency Variability in Electron Acoustic Waves. , 2009, , .		1
72	Collisionless and collisional effects on plasma waves from a partition squeeze. Journal of Plasma Physics, 2015, 81, .	2.1	1

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73	Plasma Heating due to Cyclic Diffusion across a Separatrix. Physical Review Letters, 2019, 123, 105002.	7.8	1
74	Inviscid damping of an elliptical vortex subject to an external strain flow. Physics of Plasmas, 2022, 29, .	1.9	1
75	Characteristics of two-dimensional turbulence that self-organizes into vortex crystals. , 1999, , .		0
76	Shear reduction of 2D point vortex diffusion. AIP Conference Proceedings, 2002, , .	0.4	0
77	Experimental dynamics of stressed, strongly correlated magnetized plasmas. AIP Conference Proceedings, 2002, , .	0.4	0
78	Relaxation of antihydrogen from Rydberg to ground state. AIP Conference Proceedings, 2006, , .	0.4	0
79	Measurements of correlation-enhanced collision rates. , 2013, , .		0
80	Dynamics, Statistics and Vortex Crystals in the Relaxation of 2D Turbulence. , 2001, , .		0
81	10.1063/1.4932001.1. , 2015, , .		0
82	Broadening of the drumhead-mode spectrum due to in-plane thermal fluctuations of two-dimensional trapped ion crystals in a Penning trap.. Physical Review A, 2020, 102, 053106-5310616.	2.5	0