

Richard L Mace

List of Publications by Year in descending order

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61
papers

2,872
citations

186265

28
h-index

168389

53
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61
all docs

61
docs citations

61
times ranked

959
citing authors

#	ARTICLE	IF	CITATIONS
1	Comment on "Mathematical and physical aspects of Kappa velocity distribution"[Phys. Plasmas 14, 110702 (2007)]. Physics of Plasmas, 2009, 16, .	1.9	329
2	A dispersion function for plasmas containing superthermal particles. Physics of Plasmas, 1995, 2, 2098-2109.	1.9	268
3	Generalized plasma dispersion function for a plasma with a kappa-Maxwellian velocity distribution. Physics of Plasmas, 2002, 9, 1495-1504.	1.9	233
4	The Korteweg"de Vries"Zakharov"Kuznetsov equation for electron-acoustic waves. Physics of Plasmas, 2001, 8, 2649-2656.	1.9	173
5	Arbitrary-amplitude electron-acoustic solitons in a two-electron-component plasma. Journal of Plasma Physics, 1991, 45, 323-338.	2.1	153
6	Electron-acoustic waves in the laboratory: an experiment revisited. Journal of Plasma Physics, 2000, 64, 433-443.	2.1	148
7	Higher-order electron modes in a two-electron-temperature plasma. Journal of Plasma Physics, 1990, 43, 239-255.	2.1	123
8	Electrostatic fluctuations in plasmas containing suprathermal particles. Journal of Plasma Physics, 1998, 59, 393-416.	2.1	96
9	The electron-acoustic mode in a plasma with hot suprathermal and cool Maxwellian electrons. Physics of Plasmas, 1999, 6, 44-49.	1.9	86
10	Warm plasma effects on electromagnetic ion cyclotron wave MeV electron interactions in the magnetosphere. Journal of Geophysical Research, 2011, 116, .	3.3	81
11	Effects of Superthermal Particles on Waves in Magnetized Space Plasmas. Space Science Reviews, 2005, 121, 127-139.	8.1	75
12	Dispersion characteristics for plasma resonances of Maxwellian and Kappa distribution plasmas and their comparisons to the IMAGE/RPI observations. Journal of Geophysical Research, 2005, 110, .	3.3	74
13	Numerical Investigation of Perpendicular Diffusion of Charged Test Particles in Weak Magnetostatic Slab Turbulence. Astrophysical Journal, 2000, 538, 192-202.	4.5	74
14	Electron acoustic waves in double-kappa plasmas: Application to Saturn's magnetosphere. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	70
15	Oblique propagation of electromagnetic waves in a kappa-Maxwellian plasma. Physics of Plasmas, 2007, 14, .	1.9	50
16	Whistler instability enhanced by suprathermal electrons within the Earth's foreshock. Journal of Geophysical Research, 1998, 103, 14643-14654.	3.3	48
17	Electrostatic solitons in multispecies electron-positron plasmas. Astrophysics and Space Science, 1996, 239, 125-139.	1.4	44
18	A Gordeyev integral for electrostatic waves in a magnetized plasma with a kappa velocity distribution. Physics of Plasmas, 2003, 10, 2181-2193.	1.9	41

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19	A new formulation and simplified derivation of the dispersion function for a plasma with a kappa velocity distribution. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	41
20	Generalized Langmuir waves in a magnetized plasma with a Maxwellian-Lorentzian distribution. <i>Physics of Plasmas</i> , 2003, 10, 21-28.	1.9	39
21	Electron-acoustic and cyclotron-sound instabilities driven by field-aligned hot-electron streaming. <i>Journal of Geophysical Research</i> , 1993, 98, 5881-5891.	3.3	38
22	Parallel whistler instability in a plasma with an anisotropic bi-kappa distribution. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	38
23	Unified derivation of Korteweg-de Vries- Zakharov-Kuznetsov equations in multispecies plasmas. <i>Journal of Physics A</i> , 2002, 35, 795-806.	1.6	36
24	Generalized electron Bernstein modes in a plasma with a kappa velocity distribution. <i>Physics of Plasmas</i> , 2004, 11, 507-522.	1.9	35
25	Self-gravitational magnetosonic modes in dusty plasmas with quasi-inertialess plasma constituents. <i>Physics of Plasmas</i> , 1999, 6, 279-284.	1.9	32
26	On the existence of ion-acoustic double layers in two-electron temperature plasmas. <i>Physics of Plasmas</i> , 2006, 13, 042301.	1.9	32
27	Jeans stability of dusty space plasmas. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998, 237, 146-151.	2.1	31
28	Finite electron mass effects on ion-acoustic solitons in a two electron temperature plasma. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1993, 174, 416-420.	2.1	29
29	Dust-acoustic double layers: ion inertial effects. <i>Planetary and Space Science</i> , 1993, 41, 235-244.	1.7	26
30	Solitons in dusty plasmas with positive dust grains. <i>Physics of Plasmas</i> , 2008, 15, 033701.	1.9	22
31	Effects of superthermal ring current ion tails on the electromagnetic ion cyclotron instability in multi-ion magnetospheric plasmas. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	21
32	A dielectric tensor for a uniform magnetoplasma with a generalized Lorentzian distribution. <i>Journal of Plasma Physics</i> , 1996, 55, 415-429.	2.1	20
33	Alfvén-Jeans and Magnetosonic Modes in Multispecies Self-Gravitating Dusty Plasmas. <i>Astrophysics and Space Science</i> , 1997, 254, 253-267.	1.4	20
34	Potential vorticity in magnetohydrodynamics. <i>Journal of Plasma Physics</i> , 2015, 81, .	2.1	20
35	Electron-acoustic solitons in a weakly relativistic plasma. <i>Journal of Plasma Physics</i> , 1992, 47, 61-74.	2.1	19
36	Electrostatic Bernstein waves in plasmas whose electrons have a dual kappa distribution: Applications to the Saturnian magnetosphere. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	19

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37	Pitch-angle scattering rates in planetary magnetospheres. <i>Journal of Plasma Physics</i> , 2005, 71, 237-250.	2.1	15
38	The magnetized electron-acoustic instability driven by a warm, field-aligned electron beam. <i>Physics of Plasmas</i> , 2004, 11, 1996-2008.	1.9	14
39	Streamline generation code for particle dynamics description in numerical models of turbulence. <i>Computer Physics Communications</i> , 2012, 183, 1974-1985.	7.5	14
40	Magnetic moment nonconservation in magnetohydrodynamic turbulence models. <i>Physical Review E</i> , 2012, 86, 016402.	2.1	13
41	On the existence of weak stationary electron-acoustic double layers. <i>Journal of Plasma Physics</i> , 1993, 49, 283-293.	2.1	12
42	Stopbands in the existence domains of acoustic solitons. <i>Physics of Plasmas</i> , 2014, 21, 102301.	1.9	12
43	A dielectric tensor for magnetoplasmas comprising components with generalized lorentzian distributions. <i>Physica Scripta</i> , 1996, T63, 207-210.	2.5	11
44	The role of self-consistency in double layer calculations. <i>IEEE Transactions on Plasma Science</i> , 1992, 20, 695-700.	1.3	10
45	Conservation laws for steady flow and solitons in a multifluid plasma revisited. <i>Physics of Plasmas</i> , 2007, 14, 012310.	1.9	9
46	Effects of ion abundances on electromagnetic ion cyclotron wave growth rate in the vicinity of the plasmopause. <i>Physics of Plasmas</i> , 2014, 21, 042905.	1.9	9
47	A method to generate kappa distributed random deviates for particle-in-cell simulations. <i>Computer Physics Communications</i> , 2014, 185, 2383-2386.	7.5	9
48	One-dimensional particle-in-cell simulations of electrostatic Bernstein waves in plasmas with kappa velocity distributions. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	9
49	Velocity space diffusion of charged particles in weak magnetostatic fields: Nonlinear effects, model constraints, and implications for simulations. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	8
50	Integrable, oblique travelling waves in quasi-charge-neutral two-fluid plasmas. <i>Nonlinear Processes in Geophysics</i> , 2008, 15, 179-208.	1.3	7
51	Ion Bernstein waves in a plasma with a kappa velocity distribution. <i>Physics of Plasmas</i> , 2013, 20, 102107.	1.9	7
52	Ion thermal effects on slow mode solitary waves in plasmas with two adiabatic ion species. <i>Physics of Plasmas</i> , 2015, 22, 092304.	1.9	7
53	Dual variational principles for nonlinear traveling waves in multifluid plasmas. <i>Physics of Plasmas</i> , 2007, 14, 082318.	1.9	5
54	Nonlinear evolution of electromagnetic ion cyclotron waves. <i>Physics of Plasmas</i> , 2011, 18, 042108.	1.9	4

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55	The effects of finite mass, adiabaticity, and isothermality in nonlinear plasma wave studies. Physics of Plasmas, 2018, 25, 032303.	1.9	4
56	Nonlinear Hall MHD and electrostatic ion cyclotron stationary waves: a Hamiltonian-geometric viewpoint. Journal of Plasma Physics, 2007, 73, 687-700.	2.1	3
57	2D particle-in-cell simulations of the electron temperature anisotropy driven whistler instability in plasmas having kappa velocity distributions. Physics of Plasmas, 2021, 28, .	1.9	3
58	An alternative derivation of the dielectric tensor for perpendicular wave propagation in magnetised plasmas modelled with kappa velocity distributions. Physics of Plasmas, 2018, 25, .	1.9	2
59	Enhanced whistler instability produced by suprathermal electrons upstream of the earth's bow shock. , 1999, , .		1
60	New aspects of the Jeans instability in dusty plasmas. , 1998, , .		0
61	Helicon mode driven by O ⁺ thermal anisotropy. AIP Conference Proceedings, 2000, , .	0.4	0