

# 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  
g-index

61  
all docs

61  
docs citations

61  
times ranked

959  
citing authors

#	ARTICLE	IF	CITATIONS
1	2D particle-in-cell simulations of the electron temperature anisotropy driven whistler instability in plasmas having kappa velocity distributions. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	3
2	The effects of finite mass, adiabaticity, and isothermality in nonlinear plasma wave studies. <i>Physics of Plasmas</i> , 2018, 25, 032303.	1.9	4
3	An alternative derivation of the dielectric tensor for perpendicular wave propagation in magnetised plasmas modelled with kappa velocity distributions. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	2
4	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
5	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
6	Potential vorticity in magnetohydrodynamics. <i>Journal of Plasma Physics</i> , 2015, 81, .	2.1	20
7	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
8	Stopbands in the existence domains of acoustic solitons. <i>Physics of Plasmas</i> , 2014, 21, 102301.	1.9	12
9	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
10	Ion Bernstein waves in a plasma with a kappa velocity distribution. <i>Physics of Plasmas</i> , 2013, 20, 102107.	1.9	7
11	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
12	Magnetic moment nonconservation in magnetohydrodynamic turbulence models. <i>Physical Review E</i> , 2012, 86, 016402.	2.1	13
13	Streamline generation code for particle dynamics description in numerical models of turbulence. <i>Computer Physics Communications</i> , 2012, 183, 1974-1985.	7.5	14
14	Warm plasma effects on electromagnetic ion cyclotron wave MeV electron interactions in the magnetosphere. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	81
15	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
16	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
17	Nonlinear evolution of electromagnetic ion cyclotron waves. <i>Physics of Plasmas</i> , 2011, 18, 042108.	1.9	4
18	Electron acoustic waves in double-kappa plasmas: Application to Saturn's magnetosphere. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	70

#	ARTICLE	IF	CITATIONS
19	Parallel whistler instability in a plasma with an anisotropic bi-kappa distribution. Journal of Geophysical Research, 2010, 115, .	3.3	38
20	A new formulation and simplified derivation of the dispersion function for a plasma with a kappa velocity distribution. Physics of Plasmas, 2009, 16, .	1.9	41
21	Comment on "Mathematical and physical aspects of Kappa velocity distribution"[Phys. Plasmas 14, 110702 (2007)]. Physics of Plasmas, 2009, 16, .	1.9	329
22	Solitons in dusty plasmas with positive dust grains. Physics of Plasmas, 2008, 15, 033701.	1.9	22
23	Integrable, oblique travelling waves in quasi-charge-neutral two-fluid plasmas. Nonlinear Processes in Geophysics, 2008, 15, 179-208.	1.3	7
24	Conservation laws for steady flow and solitons in a multifluid plasma revisited. Physics of Plasmas, 2007, 14, 012310.	1.9	9
25	Dual variational principles for nonlinear traveling waves in multifluid plasmas. Physics of Plasmas, 2007, 14, 082318.	1.9	5
26	Nonlinear Hall MHD and electrostatic ion-cyclotron stationary waves: a Hamiltonian-geometric viewpoint. Journal of Plasma Physics, 2007, 73, 687-700.	2.1	3
27	Oblique propagation of electromagnetic waves in a kappa-Maxwellian plasma. Physics of Plasmas, 2007, 14, .	1.9	50
28	On the existence of ion-acoustic double layers in two-electron temperature plasmas. Physics of Plasmas, 2006, 13, 042301.	1.9	32
29	Pitch-angle scattering rates in planetary magnetospheres. Journal of Plasma Physics, 2005, 71, 237-250.	2.1	15
30	Effects of Superthermal Particles on Waves in Magnetized Space Plasmas. Space Science Reviews, 2005, 121, 127-139.	8.1	75
31	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
32	The magnetized electron-acoustic instability driven by a warm, field-aligned electron beam. Physics of Plasmas, 2004, 11, 1996-2008.	1.9	14
33	Generalized electron Bernstein modes in a plasma with a kappa velocity distribution. Physics of Plasmas, 2004, 11, 507-522.	1.9	35
34	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
35	Generalized Langmuir waves in a magnetized plasma with a Maxwellian-Lorentzian distribution. Physics of Plasmas, 2003, 10, 21-28.	1.9	39
36	Unified derivation of Korteweg-de Vries- Zakharov-Kuznetsov equations in multispecies plasmas. Journal of Physics A, 2002, 35, 795-806.	1.6	36

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37	Generalized plasma dispersion function for a plasma with a kappa-Maxwellian velocity distribution. <i>Physics of Plasmas</i> , 2002, 9, 1495-1504.	1.9	233
38	The Korteweg-de Vries-Zakharov-Kuznetsov equation for electron-acoustic waves. <i>Physics of Plasmas</i> , 2001, 8, 2649-2656.	1.9	173
39	Electron-acoustic waves in the laboratory: an experiment revisited. <i>Journal of Plasma Physics</i> , 2000, 64, 433-443.	2.1	148
40	Helicon mode driven by O <sup>+</sup> thermal anisotropy. <i>AIP Conference Proceedings</i> , 2000, , .	0.4	0
41	Numerical Investigation of Perpendicular Diffusion of Charged Test Particles in Weak Magnetostatic Slab Turbulence. <i>Astrophysical Journal</i> , 2000, 538, 192-202.	4.5	74
42	Enhanced whistler instability produced by suprathermal electrons upstream of the earth's bow shock. , 1999, , .		1
43	Self-gravitational magnetosonic modes in dusty plasmas with quasi-inertialess plasma constituents. <i>Physics of Plasmas</i> , 1999, 6, 279-284.	1.9	32
44	The electron-acoustic mode in a plasma with hot suprathermal and cool Maxwellian electrons. <i>Physics of Plasmas</i> , 1999, 6, 44-49.	1.9	86
45	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
46	Whistler instability enhanced by suprathermal electrons within the Earth's foreshock. <i>Journal of Geophysical Research</i> , 1998, 103, 14643-14654.	3.3	48
47	Electrostatic fluctuations in plasmas containing suprathermal particles. <i>Journal of Plasma Physics</i> , 1998, 59, 393-416.	2.1	96
48	New aspects of the Jeans instability in dusty plasmas. , 1998, , .		0
49	Alfvén-Jeans and Magnetosonic Modes in Multispecies Self-Gravitating Dusty Plasmas. <i>Astrophysics and Space Science</i> , 1997, 254, 253-267.	1.4	20
50	A dielectric tensor for magnetoplasmas comprising components with generalized Lorentzian distributions. <i>Physica Scripta</i> , 1996, T63, 207-210.	2.5	11
51	Electrostatic solitons in multispecies electron-positron plasmas. <i>Astrophysics and Space Science</i> , 1996, 239, 125-139.	1.4	44
52	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
53	A dispersion function for plasmas containing superthermal particles. <i>Physics of Plasmas</i> , 1995, 2, 2098-2109.	1.9	268
54	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

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55	Dust-acoustic double layers: ion inertial effects. <i>Planetary and Space Science</i> , 1993, 41, 235-244.	1.7	26
56	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
57	On the existence of weak stationary electron-acoustic double layers. <i>Journal of Plasma Physics</i> , 1993, 49, 283-293.	2.1	12
58	Electron-acoustic solitons in a weakly relativistic plasma. <i>Journal of Plasma Physics</i> , 1992, 47, 61-74.	2.1	19
59	The role of self-consistency in double layer calculations. <i>IEEE Transactions on Plasma Science</i> , 1992, 20, 695-700.	1.3	10
60	Arbitrary-amplitude electron-acoustic solitons in a two-electron-component plasma. <i>Journal of Plasma Physics</i> , 1991, 45, 323-338.	2.1	153
61	Higher-order electron modes in a two-electron-temperature plasma. <i>Journal of Plasma Physics</i> , 1990, 43, 239-255.	2.1	123