

Rudi Gaelzer

List of Publications by Year in descending order

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69
papers

1,111
citations

430874

18
h-index

434195

31
g-index

70
all docs

70
docs citations

70
times ranked

388
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear development of weak beam–plasma instability. <i>Physics of Plasmas</i> , 2001, 8, 3982-3995.	1.9	72
2	Harmonic Langmuir waves. I. Nonlinear dispersion relation. <i>Physics of Plasmas</i> , 2003, 10, 364-372.	1.9	67
3	Two-dimensional nonlinear dynamics of beam–plasma instability. <i>Plasma Physics and Controlled Fusion</i> , 2008, 50, 085011.	2.1	59
4	PLASMA EMISSION BY NONLINEAR ELECTROMAGNETIC PROCESSES. <i>Astrophysical Journal</i> , 2015, 806, 237.	4.5	58
5	Harmonic Langmuir waves. III. Vlasov simulation. <i>Physics of Plasmas</i> , 2003, 10, 382-391.	1.9	57
6	Langmuir Turbulence and Suprathermal Electrons. <i>Space Science Reviews</i> , 2012, 173, 459-489.	8.1	55
7	Electromagnetic weak turbulence theory revisited. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	50
8	Harmonic Langmuir waves. II. Turbulence spectrum. <i>Physics of Plasmas</i> , 2003, 10, 373-381.	1.9	47
9	PLASMA EMISSION BY WEAK TURBULENCE PROCESSES. <i>Astrophysical Journal Letters</i> , 2014, 795, L32.	8.3	38
10	Asymmetric Solar Wind Electron Suprathermal Distributions. <i>Astrophysical Journal</i> , 2008, 677, 676-682.	4.5	37
11	Spontaneous emission of electromagnetic radiation in turbulent plasmas. <i>Physics of Plasmas</i> , 2014, 21, 010701.	1.9	35
12	Dynamics of Langmuir wave decay in two dimensions. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	29
13	NONLINEAR EVOLUTION OF BEAM-PLASMA INSTABILITY IN INHOMOGENEOUS MEDIUM. <i>Astrophysical Journal</i> , 2011, 727, 16.	4.5	27
14	SOLAR WIND STRAHL BROADENING BY SELF-GENERATED PLASMA WAVES. <i>Astrophysical Journal Letters</i> , 2013, 769, L30.	8.3	26
15	Particle-in-cell and Weak Turbulence Simulations of Plasma Emission. <i>Astrophysical Journal</i> , 2019, 871, 74.	4.5	25
16	The dispersion relations of dispersive Alfvén waves in superthermal plasmas. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 9334-9356.	2.4	21
17	Obliquely propagating electromagnetic waves in magnetized kappa plasmas. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	21
18	Effect of superthermal electrons on Alfvén wave propagation in the dusty plasmas of solar and stellar winds. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	18

#	ARTICLE	IF	CITATIONS
19	Generation of harmonic Langmuir mode by beam-plasma instability. <i>Physics of Plasmas</i> , 2002, 9, 96-110.	1.9	17
20	On the dimensionally correct kinetic theory of turbulence for parallel propagation. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	16
21	The general dielectric tensor for bi-kappa magnetized plasmas. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	15
22	Langmuir condensation by spontaneous scattering off electrons in two dimensions. <i>Plasma Physics and Controlled Fusion</i> , 2012, 54, 055012.	2.1	14
23	Ion firehose instability in plasmas with plasma particles described by product bi-kappa distributions. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	14
24	Ion-cyclotron instability in plasmas described by product-bi-kappa distributions. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	14
25	Linear Kinetic Waves in Plasmas Described by Kappa Distributions. , 2017, , 329-361.		14
26	Ray tracing studies on auroral kilometric radiation in finite width auroral cavities. <i>Journal of Geophysical Research</i> , 1994, 99, 8905.	3.3	13
27	Unified formulation for inhomogeneity-driven instabilities in the lower-hybrid range. <i>Physical Review E</i> , 2002, 65, 036407.	2.1	13
28	Two-dimensional quasilinear beamâ€“plasma instability in inhomogeneous media. <i>Plasma Physics and Controlled Fusion</i> , 2011, 53, 085004.	2.1	12
29	Transition from thermal to turbulent equilibrium with a resulting electromagnetic spectrum. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	12
30	PLASMA EMISSION BY COUNTER-STREAMING ELECTRON BEAMS. <i>Astrophysical Journal</i> , 2016, 818, 61.	4.5	12
31	Effect of charged dust particles on the ion cyclotron and firehose instabilities. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	11
32	Decay of beam-driven Langmuir wave into ion-acoustic turbulence in two dimensions. <i>Plasma Physics and Controlled Fusion</i> , 2009, 51, 095011.	2.1	11
33	Twoâ€“dimensional nonlinear dynamics of bidirectional beamâ€“plasma instability. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	11
34	Ionospheric ionâ€“acoustic enhancements by turbulent counterstreaming electron beamâ€“plasma interaction. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	11
35	Dispersion relation for electrostatic waves in plasmas with isotropic and anisotropic Kappa distributions for electrons and ions. <i>Journal of Plasma Physics</i> , 2017, 83, .	2.1	11
36	Dispersion function for plasmas with loss-cone distributions in an inhomogeneous magnetic field. <i>Physical Review E</i> , 1997, 55, 5859-5873.	2.1	10

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37	Mode-coupling of low-frequency electromagnetic waves in dusty plasmas with temperature anisotropy. <i>Physics of Plasmas</i> , 2007, 14, 022104.	1.9	10
38	Obliquely propagating Alfvén waves in a Maxwellian dusty plasma. <i>Plasma Physics and Controlled Fusion</i> , 2009, 51, 015011.	2.1	10
39	The Dielectric Tensor for Magnetized Dusty Plasmas with Superthermal Plasma Populations and Dust Particles of Different Sizes. <i>Brazilian Journal of Physics</i> , 2011, 41, 258-274.	1.4	10
40	Nonlinear frequency shifts of plasma eigenmodes. <i>Physics of Plasmas</i> , 2002, 9, 4166-4173.	1.9	9
41	A new formulation for the dielectric tensor for magnetized dusty plasmas with variable charge on the dust particles. <i>Brazilian Journal of Physics</i> , 2008, 38, .	1.4	8
42	Ion firehose instability in a dusty plasma considering product-bi-kappa distributions for the plasma particles. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	8
43	Generation of quasi-isotropic electron population during nonlinear beam-plasma interaction. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	7
44	On the influence of the shape of kappa distributions of ions and electrons on the ion-cyclotron instability. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	7
45	Dispersion relation and the dielectric tensor for magnetized plasmas with inhomogeneous magnetic field. <i>Physical Review E</i> , 1995, 51, 2407-2424.	2.1	6
46	Simulation of asymmetric solar wind electron distributions. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	6
47	Ion-acoustic enhancements generated by beam-plasma instability in an auroral cavity. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	6
48	Solar Wind Electron Acceleration via Langmuir Turbulence. <i>Terrestrial, Atmospheric and Oceanic Sciences</i> , 2013, 24, 175.	0.6	6
49	Alfvén waves in dusty plasmas with plasma particles described by anisotropic kappa distributions. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	5
50	Electromagnetic ion-cyclotron instability in a dusty plasma with product-bi-kappa distributions for the plasma particles. <i>Astrophysics and Space Science</i> , 2017, 362, 1.	1.4	5
51	One-dimensional electromagnetic simulation of multiple electron beams propagating in space plasmas. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	4
52	Comment on "Onsager symmetry for inhomogeneous magnetized plasmas" [Phys. Plasmas 3, 4325 (1996)]. <i>Physics of Plasmas</i> , 1997, 4, 3091-3093.	1.9	3
53	Effects of nonlinear frequency shifts on certain induced scattering processes. <i>Physics of Plasmas</i> , 2002, 9, 4520-4524.	1.9	3
54	Particle-in-cell simulations on spontaneous thermal magnetic field fluctuations. <i>Physics of Plasmas</i> , 2013, 20, 100702.	1.9	3

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55	The oblique firehose instability in a bi-kappa magnetized plasma. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	3
56	Effects of dust particles charged by inelastic collisions and by photoionization on Alfvén waves in a stellar wind. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 508, 340-351.	4.4	3
57	Dielectric tensor for inhomogeneous plasmas in inhomogeneous magnetic field. <i>Physics of Plasmas</i> , 1999, 6, 4533-4541.	1.9	2
58	Effects of dust charge variation on electrostatic waves in dusty plasmas with temperature anisotropy. <i>Brazilian Journal of Physics</i> , 2009, 39, 112-133.	1.4	2
59	Two dimensional kinetic analysis of electrostatic harmonic plasma waves. <i>Physics of Plasmas</i> , 2016, 23, 062310.	1.9	2
60	Weakly turbulent plasma processes in the presence of inverse power-law velocity tail population. <i>Physics of Plasmas</i> , 2017, 24, 112902.	1.9	2
61	On the Influence of the Shape of Kappa Distributions of Ions and Electrons on the Ion Firehose Instability. <i>Brazilian Journal of Physics</i> , 2019, 49, 526-538.	1.4	2
62	Oblique Alfvén waves in a stellar wind environment with dust particles charged by inelastic collisions and by photoionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 512, 1795-1804.	4.4	2
63	The dispersion relation for electrostatic fluctuations in weakly inhomogeneous plasmas. <i>Brazilian Journal of Physics</i> , 2004, 34, 1638-1644.	1.4	1
64	Langmuir Turbulence and Suprathermal Electrons. <i>Space Sciences Series of ISSI</i> , 2012, , 459-489.	0.0	1
65	SUPERHERMAL ELECTRON DISTRIBUTIONS IN THE SOLAR WIND ENVIRONMENT. , 2009, , 111-128.		1
66	The effective longitudinal dielectric constant for plasmas in inhomogeneous magnetic fields. <i>Brazilian Journal of Physics</i> , 2004, 34, 1224-1240.	1.4	1
67	Multiple harmonics of electron waves studied using weak turbulence theory in a two-dimensional formulation. <i>Physics of Plasmas</i> , 2021, 28, 102302.	1.9	0
68	On the Onsager symmetry of the effective dielectric tensor for plasmas in inhomogeneous magnetic field. <i>Brazilian Journal of Physics</i> , 2004, 34, 1645-1650.	1.4	0
69	DYNAMICS OF BEAM-PLASMA INSTABILITY AND LANGMUIR WAVE DECAY IN TWO-DIMENSIONS. , 2009, , 95-109.		0