

# Amar Prasad Misra

## List of Publications by Year in descending order

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105  
papers

2,199  
citations

186265

28  
h-index

289244

40  
g-index

108  
all docs

108  
docs citations

108  
times ranked

689  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ion-acoustic shocks in quantum electron-positron-ion plasmas. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	113
2	Modulation of dust acoustic waves with a quantum correction. <i>Physics of Plasmas</i> , 2006, 13, 072305.	1.9	93
3	Spin Contribution to the Ponderomotive Force in a Plasma. <i>Physical Review Letters</i> , 2010, 105, 105004.	7.8	78
4	Electron-acoustic solitary waves in dense quantum electron-ion plasmas. <i>Physics of Plasmas</i> , 2007, 14, .	1.9	72
5	Circularly polarized modes in magnetized spin plasmas. <i>Journal of Plasma Physics</i> , 2010, 76, 857-864.	2.1	56
6	Nonplanar ion-acoustic waves in a quantum plasma. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007, 369, 90-97.	2.1	55
7	Dust-acoustic solitary waves in an inhomogeneous magnetized hot dusty plasma with dust charge fluctuations. <i>Physics of Plasmas</i> , 2006, 13, 062307.	1.9	48
8	Nonlinear wave modulation in a quantum magnetoplasma. <i>Physics of Plasmas</i> , 2007, 14, 012309.	1.9	48
9	Modulational instability of dust acoustic waves in a dusty plasma with nonthermal electrons and ions. <i>European Physical Journal D</i> , 2006, 39, 49-57.	1.3	47
10	Ion-acoustic solitary waves and shocks in a collisional dusty negative-ion plasma. <i>Physical Review E</i> , 2012, 86, 056406.	2.1	45
11	Chaos-based image encryption using vertical-cavity surface-emitting lasers. <i>Optik</i> , 2019, 176, 119-131.	2.9	44
12	Synchronization of spatiotemporal semiconductor lasers and its application in color image encryption. <i>Optics Communications</i> , 2011, 284, 2278-2291.	2.1	43
13	Modulational instability of magnetosonic waves in a spin $1\hat{a}^2$ quantum plasma. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	42
14	Quantum electron-acoustic double layers in a magnetoplasma. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	42
15	Localized whistlers in magnetized spin quantum plasmas. <i>Physical Review E</i> , 2010, 82, 056406.	2.1	40
16	Modulation of ion-acoustic waves in a nonextensive plasma with two-temperature electrons. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	39
17	Temporal dynamics in the one-dimensional quantum Zakharov equations for plasmas. <i>Physics of Plasmas</i> , 2010, 17, 032307.	1.9	38
18	Oblique modulation of electron-acoustic waves in a Fermi electron-ion plasma. <i>Physics of Plasmas</i> , 2007, 14, 122107.	1.9	37

#	ARTICLE	IF	CITATIONS
19	Electromagnetic surface modes in a magnetized quantum electron-hole plasma. <i>Physical Review E</i> , 2011, 83, 057401.	2.1	37
20	Ponderomotive force due to the intrinsic spin in extended fluid and kinetic models. <i>Physical Review E</i> , 2011, 83, 036410.	2.1	37
21	Dust ion-acoustic shocks in quantum dusty pair-ion plasmas. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	36
22	A novel hyperchaos in the quantum Zakharov system for plasmas. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2008, 372, 1469-1476.	2.1	34
23	Modulational instability of ion-acoustic wave envelopes in magnetized quantum electron-positron-ion plasmas. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	34
24	Dynamical properties of acoustic-gravity waves in the atmosphere. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2019, 186, 78-81.	1.6	34
25	Alfvén surface modes in dusty spin 1/2 quantum magnetoplasmas. <i>Physics of Plasmas</i> , 2007, 14, 064501.	1.9	33
26	Characteristics of ion-acoustic solitary wave in a laboratory dusty plasma under the influence of ion-beam. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	33
27	Generation of wakefields by whistlers in spin quantum magnetoplasmas. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	32
28	Dust-acoustic solitary waves in a magnetized dusty plasma with nonthermal electrons and trapped ions. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2015, 22, 1360-1369.	3.3	30
29	Degenerating the butterfly attractor in a plasma perturbation model using nonlinear controllers. <i>Chaos, Solitons and Fractals</i> , 2019, 122, 58-68.	5.1	30
30	Saddle-node bifurcation and modulational instability associated with the pulse propagation of dust ion-acoustic waves in a viscous dusty plasma: A complex nonlinear Schrödinger equation. <i>Physics of Plasmas</i> , 2007, 14, 012110.	1.9	28
31	Electrostatic acoustic modes in a self-gravitating complex plasma with variable charge impurities. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2004, 323, 110-121.	2.1	27
32	Surface waves in magnetized quantum electron-positron plasmas. <i>Journal of Plasma Physics</i> , 2010, 76, 87-99.	2.1	27
33	Modulational instability and nonlinear evolution of two-dimensional electrostatic wave packets in ultra-relativistic degenerate dense plasmas. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	27
34	Stability and evolution of wave packets in strongly coupled degenerate plasmas. <i>Physical Review E</i> , 2012, 85, 026409.	2.1	27
35	Dust-acoustic waves in a self-gravitating complex plasma with trapped electrons and nonisothermal ions. <i>European Physical Journal D</i> , 2006, 37, 105-113.	1.3	26
36	Amplitude modulation of electron plasma oscillations in a dense electron-hole plasma. <i>Physics of Plasmas</i> , 2007, 14, .	1.9	24



#	ARTICLE	IF	CITATIONS
55	Amplitude modulation of three-dimensional low-frequency solitary waves in a magnetized dusty superthermal plasma. Iranian Physical Journal, 2017, 11, 217-224.	1.2	14
56	Multidimensional ion-acoustic solitary waves and shocks in quantum plasmas. Physica A: Statistical Mechanics and Its Applications, 2015, 421, 269-278.	2.6	13
57	Nonlinear ion-acoustic solitary waves in an electron-positron-ion plasma with relativistic positron beam. Chinese Physics B, 2018, 27, 105207.	1.4	13
58	Acoustic Waves in a Self-Gravitating Collisional Dusty Plasma. Physica Scripta, 2005, 71, 207-212.	2.5	12
59	Stability of two-dimensional ion-acoustic wave packets in quantum plasmas. Physics of Plasmas, 2011, 18, 042102.	1.9	12
60	Large amplitude solitary waves in ion-beam plasmas with charged dust impurities. Physics of Plasmas, 2011, 18, .	1.9	12
61	Characteristics of solitary waves in a relativistic degenerate ion beam driven magneto plasma. Physics of Plasmas, 2018, 25, .	1.9	12
62	Nonlinear propagation of dust ion-acoustic waves in a dusty quantum magnetoplasma. Journal of Plasma Physics, 2008, 74, 197-205.	2.1	11
63	Complex Korteweg-de Vries equation and nonlinear dust-acoustic waves in a magnetoplasma with a pair of trapped ions. Applied Mathematics and Computation, 2015, 256, 368-374.	2.2	11
64	Nonlinear Landau damping of wave envelopes in a quantum plasma. Physics of Plasmas, 2016, 23, .	1.9	11
65	Nonlinear interaction of electromagnetic pulses with an electron-positron plasma—a coupled NLS equation. Chaos, Solitons and Fractals, 2003, 15, 801-810.	5.1	10
66	Acoustic Surface Waves in a Collisional Dusty Plasma. Physica Scripta, 2004, 69, 44-47.	2.5	10
67	Nonlinear oscillations in a magnetized dusty plasma with two-temperature trapped ions. Chaos, Solitons and Fractals, 2009, 40, 758-765.	5.1	10
68	Modulation of drift-wave envelopes in a nonuniform quantum magnetoplasma. Physics of Plasmas, 2014, 21, 042306.	1.9	10
69	Landau damping of Gardner solitons in a dusty bi-ion plasma. Physics of Plasmas, 2015, 22, .	1.9	10
70	Synchronization in networks of coupled hyperchaotic CO <sub>2</sub> lasers. Physica Scripta, 2020, 95, 045225.	2.5	10
71	Coupled drift-Alfvén-Shukla-Varma modes in quantum dusty plasmas. Physics of Plasmas, 2009, 16, .	1.9	9
72	Magnetohydrodynamic shocks in a dissipative quantum plasma with exchange-correlation effects. European Physical Journal Plus, 2017, 132, 1.	2.6	9

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73	Stimulated scattering instability in a relativistic plasma. <i>Physics of Plasmas</i> , 2018, 25, 062116.	1.9	9
74	Landau damping effects on dust-acoustic solitary waves in a dusty negative-ion plasma. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	8
75	Effects of Coriolis force on the nonlinear interactions of acoustic-gravity waves in the atmosphere. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2021, 222, 105722.	1.6	8
76	Amplitude modulated drift wave packets in a nonuniform magnetoplasma. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2012, 376, 2591-2594.	2.1	7
77	Generation of wakefields and electromagnetic solitons in relativistic degenerate plasmas. <i>Physica Scripta</i> , 2020, 95, 015603.	2.5	7
78	Wave-particle interactions in quantum plasmas. <i>Reviews of Modern Plasma Physics</i> , 2022, 6, 1.	4.1	7
79	Singular waves in a magnetized pair-ion plasma. <i>Physics of Plasmas</i> , 2009, 16, 074505.	1.9	6
80	Upper-hybrid wave-driven Alfvénic turbulence in magnetized dusty plasmas. <i>Physical Review E</i> , 2011, 83, 037401.	2.1	6
81	Rosby rogons in atmosphere and in the solar photosphere. <i>Europhysics Letters</i> , 2012, 100, 55001.	2.0	6
82	Effects of group velocity and multiplasmon resonances on the modulation of Langmuir waves in a degenerate plasma. <i>Physical Review E</i> , 2017, 96, 053209.	2.1	6
83	Landau damping of electron-acoustic waves due to multi-plasmon resonances. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	6
84	On the formation of shock and soliton in a dense quantum dusty plasma with cylindrical geometry. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2010, 15, 275-280.	3.3	5
85	Modulational instability of ion-acoustic wave packets in quantum pair-ion plasmas. <i>Astrophysics and Space Science</i> , 2011, 331, 605-609.	1.4	5
86	Effects of Landau damping on ion-acoustic solitary waves in a semiclassical plasma. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	5
87	Surface plasmon oscillations in a semi-bounded semiconductor plasma. <i>Plasma Science and Technology</i> , 2018, 20, 025001.	1.5	5
88	Large amplitude electromagnetic solitons in a fully relativistic magnetized electron-positron-pair plasma. <i>Advances in Space Research</i> , 2020, 66, 2265-2273.	2.6	5
89	Optical surface plasmons at a metal-crystal interface with the Drude-Lorentz model for material permittivity. <i>Physica Scripta</i> , 2021, 96, 015601.	2.5	5
90	Nonlinear evolution of internal gravity waves in the Earth's ionosphere: Analytical and numerical approach. <i>Advances in Space Research</i> , 2022, 69, 3374-3385.	2.6	5

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91	Comment on "Nonrelativistic electromagnetic surface waves: Dispersion properties in a magnetized dusty electron-positron plasma". Physical Review E, 2004, 70, 058401.	2.1	4
92	Stability and evolution of electromagnetic solitons in relativistic degenerate laser plasmas. Journal of Plasma Physics, 2020, 86, .	2.1	4
93	Internal Gravity Waves in the Earth's Ionosphere. IEEE Transactions on Plasma Science, 2022, 50, 2603-2608.	1.3	4
94	On the Nonlinear Excitation in Self Gravitating Quantum Dusty Plasma. International Journal of Theoretical Physics, 2009, 48, 1132-1141.	1.2	3
95	Evolution of Alfvénic wave envelopes in spin-1/2 quantum Hall-magnetohydrodynamic plasmas. Physics of Plasmas, 2009, 16, 102309.	1.9	2
96	Modulation and nonlinear evolution of multi-dimensional Langmuir wave envelopes in a relativistic plasma. Physics of Plasmas, 2016, 23, 122112.	1.9	2
97	Polarized Debye Sheath in Degenerate Plasmas. Communications in Theoretical Physics, 2019, 71, 1341.	2.5	2
98	Higher order contribution to the propagation characteristics of low frequency transverse waves in a dusty plasma. Pramana - Journal of Physics, 2004, 63, 579-593.	1.8	1
99	Modulational instability of magnetosonic waves in a spin 1/2 quantum plasma. , 0, .		1
100	Drift ion-acoustic waves in a nonuniform rotating magnetoplasma with two-temperature superthermal electrons. Physica Scripta, 2022, 97, 045603.	2.5	1
101	Nonlinear Wave-Wave Interactions in Quantum Plasmas. , 2010, , .		0
102	Modulation of kinetic Alfvén waves in an intermediate low-beta magnetoplasma. Physics of Plasmas, 2018, 25, 052121.	1.9	0
103	Effects of Coriolis Force on the Nonlinear Interactions of Acoustic-Gravity Waves in the Atmosphere. SSRN Electronic Journal, 0, , .	0.4	0
104	Dust-acoustic solitary waves and shocks in nonthermal plasmas. , 2019, , .		0
105	Internal Gravity Waves in the Earth's Ionosphere. , 2021, , .		0