John Goree

List of Publications by Year
in descending order

138 papers	9,288 citations	41258 49 h-index	38300 95 g-index
138 all docs	138 docs citations	138 times ranked	2322 citing authors

#	Article	IF	Citations
1	Plasma Crystal: Coulomb Crystallization in a Dusty Plasma. Physical Review Letters, 1994, 73, 652-655.	2.9	1,481
2	Dispersion of Plasma Dust Acoustic Waves in the Strong-Coupling Regime. Physical Review Letters, 1996, 77, 3137-3140.	2.9	514
3	Condensed Plasmas under Microgravity. Physical Review Letters, 1999, 83, 1598-1601.	2.9	444
4	Charging of particles in a plasma. Plasma Sources Science and Technology, 1994, 3, 400-406.	1.3	353
5	Superdiffusion and Non-Gaussian Statistics in a Driven-Dissipative 2D Dusty Plasma. Physical Review Letters, 2008, 100, 055003.	2.9	310
6	Fluctuations of the charge on a dust grain in a plasma. IEEE Transactions on Plasma Science, 1994, 22, 151-158.	0.6	268
7	Experimental observation of very lowâ€frequency macroscopic modes in a dusty plasma. Physics of Plasmas, 1996, 3, 1212-1219.	0.7	222
8	Mach Cones in a Coulomb Lattice and a Dusty Plasma. Physical Review Letters, 1999, 83, 3649-3652.	2.9	215
9	Shear Flows and Shear Viscosity in a Two-Dimensional Yukawa System (Dusty Plasma). Physical Review Letters, 2004, 93, 155004.	2.9	215
10	Polarized supersonic plasma flow simulation for charged bodies such as dust particles and spacecraft. Physical Review E, 1995, 52, 5312-5326.	0.8	197
11	Transverse Waves in a Two-Dimensional Screened-Coulomb Crystal (Dusty Plasma). Physical Review Letters, 2000, 84, 5141-5144.	2.9	193
12	Radiation pressure and gas drag forces on a melamine-formaldehyde microsphere in a dusty plasma. Physics of Plasmas, 2003, 10, 9-20.	0.7	192
13	Collisional plasma sheath model. Physics of Fluids B, 1991, 3, 2796-2804.	1.7	188
14	Accurate particle position measurement from images. Review of Scientific Instruments, 2007, 78, 053704.	0.6	182
15	Phonon Spectrum in a Plasma Crystal. Physical Review Letters, 2002, 89, 035001.	2.9	176
16	Killing of S. mutans Bacteria Using a Plasma Needle at Atmospheric Pressure. IEEE Transactions on Plasma Science, 2006, 34, 1317-1324.	0.6	169
17	Dispersion relations of longitudinal and transverse waves in two-dimensional screened Coulomb crystals. Physical Review E, 2002, 65, 066402.	0.8	154
18	Laser-excited Mach cones in a dusty plasma crystal. Physical Review E, 2000, 62, 4162-4176.	0.8	140

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19	Model of energetic electron transport in magnetron discharges. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1990, 8, 30-37.	0.9	132
20	Mach cone shocks in a two-dimensional Yukawa solid using a complex plasma. Physical Review E, 2000, 61, 5557-5572.	0.8	113
21	Experimental studies of twoâ€dimensional and threeâ€dimensional structure in a crystallized dusty plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 519-524.	0.9	111
22	Laser method of heating monolayer dusty plasmas. Physics of Plasmas, 2006, 13, 032106.	0.7	104
23	Observation of twoâ€temperature electrons in a sputtering magnetron plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 688-690.	0.9	100
24	Shear Viscosity of Two-Dimensional Yukawa Systems in the Liquid State. Physical Review Letters, 2005, 94, 185002.	2.9	100
25	Transverse Optical Mode in a One-Dimensional Yukawa Chain. Physical Review Letters, 2003, 91, 255003.	2.9	91
26	Decharging of Complex Plasmas: First Kinetic Observations. Physical Review Letters, 2003, 90, 055003.	2.9	81
27	Experimental test of two-dimensional melting through disclination unbinding. Physical Review E, 2001, 64, 051404.	0.8	78
28	Shear Viscosity and Shear Thinning in Two-Dimensional Yukawa Liquids. Physical Review Letters, 2006, 96, 145003.	2.9	77
29	Dust release from surfaces exposed to plasma. Physics of Plasmas, 2006, 13, 123504.	0.7	76
30	Errors in particle tracking velocimetry with high-speed cameras. Review of Scientific Instruments, 2011, 82, 053707.	0.6	76
31	Particle growth in a sputtering discharge. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 2835-2840.	0.9	75
32	Observation of Temperature Peaks due to Strong Viscous Heating in a Dusty Plasma Flow. Physical Review Letters, 2012, 109, 185002.	2.9	75
33	Viscoelasticity of 2D Liquids Quantified in a Dusty Plasma Experiment. Physical Review Letters, 2010, 105, 025002.	2.9	72
34	Measurements of ion velocity and density in the plasma sheath. Physics of Fluids B, 1992, 4, 1663-1670.	1.7	68
35	Particle simulation of two dimensional dust crystal formation in a mesothermal plasma flow. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 511-518.	0.9	66
36	Time-correlation functions and transport coefficients of two-dimensional Yukawa liquids. Physical Review E, 2009, 79, 026401.	0.8	66

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37	Superdiffusion in two-dimensional Yukawa liquids. Physical Review E, 2007, 75, 016405.	0.8	65
38	Experimental investigation of particle heating in a strongly coupled dusty plasma. Physics of Plasmas, 2000, 7, 3904.	0.7	63
39	Ionization instabilities and resonant acoustic modes. Physics of Plasmas, 2001, 8, 5018-5024.	0.7	63
40	Cutoff Wave Number for Shear Waves in a Two-Dimensional Yukawa System (Dusty Plasma). Physical Review Letters, 2006, 97, 115001.	2.9	62
41	Observation of the spatial growth of self-excited dust-density waves. Physics of Plasmas, 2010, 17, .	0.7	62
42	Green-Kubo relation for viscosity tested using experimental data for a two-dimensional dusty plasma. Physical Review E, 2011, 84, 046412.	0.8	62
43	Compressional and shear wakes in a two-dimensional dusty plasma crystal. Physical Review E, 2003, 68, 056409.	0.8	60
44	Phonons in a one-dimensional Yukawa chain: Dusty plasma experiment and model. Physical Review E, 2005, 71, 046410.	0.8	60
45	Nonlinear Compressional Pulses in a 2D Crystallized Dusty Plasma. Physical Review Letters, 2002, 88, 215002.	2.9	56
46	Evolution of Shear-Induced Melting in a Dusty Plasma. Physical Review Letters, 2010, 104, 165003.	2.9	56
47	Observation of dust shedding from material bodies in a plasma. Journal of Geophysical Research, 1992, 97, 2935-2942.	3.3	54
48	Non-Gaussian statistics and superdiffusion in a driven-dissipative dusty plasma. Physical Review E, 2008, 78, 046403.	0.8	50
49	Lowâ€frequency turbulent transport in magnetron plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1989, 7, 1014-1018.	0.9	49
50	Laserâ€induced fluorescence characterization of a multidipole filament plasma. Physics of Fluids B, 1991, 3, 2913-2921.	1.7	47
51	Superdiffusion of two-dimensional Yukawa liquids due to a perpendicular magnetic field. Physical Review E, 2014, 90, 013105.	0.8	47
52	Experimental study of nonlinear solitary waves in two-dimensional dusty plasma. Physics of Plasmas, 2008, 15, .	0.7	45
53	Strongly coupled plasmas obey the fluctuation theorem for entropy production. Nature Physics, 2018, 14, 21-24.	6.5	44
54	Acceleration and orbits of charged particles beneath a monolayer plasma crystal. Physics of Plasmas, 2002, 9, 4465-4472.	0.7	42

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55	Laserâ€induced fluorescence measurement of plasma ion temperatures: Corrections for power saturation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1989, 7, 977-981.	0.9	41
56	Nonlinear Interaction of Compressional Waves in a 2D Dusty Plasma Crystal. Physical Review Letters, 2004, 92, 085001.	2.9	41
57	Viscoelastic response of Yukawa liquids. Physical Review E, 2010, 81, 056404.	0.8	41
58	Cutoff wave number for shear waves and Maxwell relaxation time in Yukawa liquids. Physical Review E, 2012, 85, 066401.	0.8	41
59	Nonlinear compressional waves in a two-dimensional Yukawa lattice. Physical Review E, 2003, 68, 046402.	0.8	38
60	Electron velocity distribution functions in a sputtering magnetron discharge for the EÃ—B direction. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 2173-2176.	0.9	37
61	Laser-excited shear waves in solid and liquid two-dimensional dusty plasmas. Physics of Plasmas, 2006, 13, 042104.	0.7	35
62	Overestimation of Viscosity by the Green-Kubo Method in a Dusty Plasma Experiment. Physical Review Letters, 2017, 118, 195001.	2.9	34
63	Laserâ€induced fluorescence characterization of ions in a magnetron plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1990, 8, 3920-3924.	0.9	31
64	Line ratio imaging of a gas discharge. IEEE Transactions on Plasma Science, 1999, 27, 76-77.	0.6	30
65	Monte Carlo simulation of ionization in a magnetron plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1990, 8, 1627-1631.	0.9	29
66	SHEAR VISCOSITY OF STRONGLY-COUPLED TWO-DIMENSIONAL YUKAWA LIQUIDS: EXPERIMENT AND MODELING. Modern Physics Letters B, 2007, 21, 1357-1376.	1.0	29
67	Development of nonlinearity in a growing self-excited dust-density wave. Physics of Plasmas, 2011, 18, 013705.	0.7	28
68	Synchronization mechanism and Arnold tongues for dust density waves. Physical Review E, 2012, 85, 046401.	0.8	27
69	Experimental determination of shock speed versus exciter speed in a two-dimensional dusty plasma. Physical Review E, 2020, 101, 043211.	0.8	26
70	Magnetic field dependence of sputtering magnetron efficiency. Applied Physics Letters, 1991, 59, 1052-1054.	1.5	25
71	Observations of particle layers levitated in a radioâ€frequency sputtering plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 3137-3145.	0.9	25
72	Experimental observation of cnoidal waveform of nonlinear dust acoustic waves. Physics of Plasmas, 2018, 25, .	0.7	24

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73	Electron and ion transport in magnetron plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1990, 8, 1623-1626.	0.9	23
74	Positive charging of grains in an afterglow plasma is enhanced by ions drifting in an electric field. Physics of Plasmas, 2021, 28, .	0.7	23
75	Saturation broadening of laserâ€induced fluorescence from plasma ions. Review of Scientific Instruments, 1993, 64, 996-1000.	0.6	22
76	Relationship between dust acoustic waves in two and three dimensions. Physics of Plasmas, 2006, 13, 104510.	0.7	22
77	Frequency-dependent shear viscosity of a liquid two-dimensional dusty plasma. Physical Review E, 2012, 85, 066402.	0.8	22
78	Energy transport in a shear flow of particles in a two-dimensional dusty plasma. Physical Review E, 2012, 86, 056403.	0.8	22
79	Diagnostics for transport phenomena in strongly coupled dusty plasmas. Plasma Physics and Controlled Fusion, 2013, 55, 124004.	0.9	22
80	Temperature dependence of viscosity in a two-dimensional dusty plasma without the effects of shear thinning. Physics of Plasmas, 2016, 23, 093703.	0.7	20
81	Dust mitigation technology for lunar exploration utilizing an electron beam. Acta Astronautica, 2020, 177, 405-409.	1.7	20
82	Viscosity calculated in simulations of strongly coupled dusty plasmas with gas friction. Physics of Plasmas, 2011, 18, .	0.7	19
83	Waves and oscillations in plasma crystals. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 533-543.	0.6	18
84	Experimental measurement of velocity correlations for two microparticles in a plasma with ion flow. Physical Review E, 2014, 90, 013102.	0.8	18
85	Laser Heating of 2-D Dusty Plasmas Using a Random Arc Pattern. IEEE Transactions on Plasma Science, 2016, 44, 549-552.	0.6	17
86	Gas flow driven by thermal creep in dusty plasma. Physical Review E, 2009, 80, 046402.	0.8	16
87	Transverse oscillations in a single-layer dusty plasma under microgravity. Physics of Plasmas, 2009, 16, .	0.7	16
88	Dispersion relations for the dust-acoustic wave under experimental conditions. Physics of Plasmas, 2014, 21, .	0.7	16
89	Particle position and velocity measurement in dusty plasmas using particle tracking velocimetry. Journal of Plasma Physics, 2016, 82, .	0.7	16
90	Preservation of a Dust Crystal as it Falls in an Afterglow Plasma. Frontiers in Physics, 0, 10, .	1.0	14

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91	Determination of yield stress of 2D (Yukawa) dusty plasma. Physics of Plasmas, 2017, 24, 103702.	0.7	13
92	Correlation and spectrum of dust acoustic waves in a radio-frequency plasma using PK-4 on the International Space Station. Physics of Plasmas, 2020, 27, .	0.7	13
93	Effect of strong coupling on the dust acoustic instability. Physical Review E, 2014, 89, 013103.	0.8	12
94	Einstein Frequency Measurement for a Strongly Coupled Dusty Plasma. IEEE Transactions on Plasma Science, 2018, 46, 763-767.	0.6	12
95	Pressure dependence of ionization efficiency in sputtering magnetrons. Applied Physics Letters, 1990, 57, 2080-2082.	1.5	11
96	Effect of electrostatic plasma oscillations on the kinetic energy of a charged macroparticle. Physics of Plasmas, 2006, 13, 012111.	0.7	11
97	Shocks propagate in a 2D dusty plasma with less attenuation than due to gas friction alone. Physics of Plasmas, 2020, 27, .	0.7	10
98	A forced Kortewegâ€“de Vries model for nonlinear mixing of oscillations in a dusty plasma. Physics of Plasmas, 2020, 27, .	0.7	9
99	Dusty plasma diagnostics methods for charge, electron temperature, and ion density. Physics of Plasmas, 2010, 17, .	0.7	8
100	Characterization of three-dimensional structure using images. Review of Scientific Instruments, 2015, 86, 033703.	0.6	8
101	Improvement of the electron beam (e-beam) lunar dust mitigation technology with varying the beam incident angle. Acta Astronautica, 2021, 188, 362-366.	1.7	8
102	Mobility in a strongly coupled dusty plasma with gas. Physical Review E, 2014, 89, 043107.	0.8	7
103	Imaging of the Dust Acoustic Wave to Explore Synchronization. IEEE Transactions on Plasma Science, 2014, 42, 2688-2689.	0.6	7
104	Particle velocity distribution in a three-dimensional dusty plasma under microgravity conditions. AIP Conference Proceedings, 2018, , .	0.3	7
105	Shock width measured under liquid and solid conditions in a two-dimensional dusty plasma. Physical Review E, 2021, 104, 055201.	0.8	7
106	Fluctuation theorem convergence in a viscoelastic medium demonstrated experimentally using a dusty plasma. Physical Review E, 2021, 104, 035207.	0.8	6
107	Dusty plasma experiment to confirm an expression for the decay of autocorrelation functions. Physical Review E, 2018, 98, 023201.	0.8	5
108	Experiment and model for a Stokes layer in a strongly coupled dusty plasma. Physical Review E, 2021, 104, 035208.	0.8	5

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109	Ion impact etch anisotropy downstream from diffusion plasma sources. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 3178-3180.	0.9	4
110	Perpendicular diffusion of a dilute beam of charged dust particles in a strongly coupled dusty plasma. Physics of Plasmas, 2014, 21, .	0.7	4
111	Coupling of an acoustic wave to shear motion due to viscous heating. Physics of Plasmas, 2016, 23, 073707.	0.7	4
112	Multiple timescales in a strongly coupled dusty plasma revealed by survival-function analysis. Physical Review E, 2018, 98, .	0.8	4
113	Nonlinear Wave Synchronization in a Dusty Plasma Under Microgravity on the International Space Station (ISS). IEEE Transactions on Plasma Science, 2021, 49, 3958-3962.	0.6	4
114	Complex viscosity of 3D Yukawa liquids. AIP Conference Proceedings, 2011, , .	0.3	3
115	Simulation of Three-Dimensional Dusty Plasmas. IEEE Transactions on Plasma Science, 2014, 42, 2686-2687.	0.6	3
116	Time-Dependent Shear Motion in a Strongly Coupled Dusty Plasma in PK-4 on the International Space Station (ISS). IEEE Transactions on Plasma Science, 2021, 49, 2972-2978.	0.6	3
117	Experimental demonstration that a free-falling aerosol particle obeys a fluctuation theorem. Physical Review E, 2018, 97, 050601.	0.8	2
118	Diffusive Motion in a 3-D Cluster in PK-4. IEEE Transactions on Plasma Science, 2019, 47, 3100-3106.	0.6	2
119	Comment on â€˜â€˜Optical carriage for laserâ€induced fluorescence in a magnetized plasmaâ€™â€™ [Rev. Sci. Instrum. 59, 2306 (1988)]. Review of Scientific Instruments, 1989, 60, 3830-3831.	0.6	1
120	Strongly-coupled dusty plasmas. , 1995, , .		1
121	Dynamical Phase Transition in Dust Crystals. AIP Conference Proceedings, 2002, , .	0.3	1
122	Disinfection of S. Mutans Bacteria Using a Plasma Needle at Atmospheric Pressure. , 2007, , .		1
123	10.1063/1.3524691.1. , 2010, , .		1
124	10.1063/1.3544938.1. , 2011, , .		1
125	Frequency-dependent complex viscosity obtained for a liquid two-dimensional dusty plasma experiment. Physical Review E, 2022, 105, 015209.	0.8	1
126	A model of particle temperature in dusty plasmas. , 1998, , .		0

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127	Observation of Naturally-Occurring Waves in a Strongly Coupled Plasma. AIP Conference Proceedings, 2003, , .	0.3	0
128	Disinfection of S. Mutans bacteria using a plasma needle at atmospheric pressure. , 2006, , .		0
129	A biological diagnostic of atmosphericpressure plasmas. , 2006, , .		0
130	Molecular-dynamics simulations of viscosity and diffusion in a 2d dusty plasma. , 2006, , .		0
131	Diffusive Transport of Microparticles in an RF Glow Discharge Plasma. , 2007, , .		0
132	Oscillatory particle motion observed in dusty plasma under microgravity. , 2009, , .		0
133	Laboratory observation of naturally occuring dust density waves. , 2010, , .		0
134	PPPS-2013: Synchronization of the dust acoustic wave. , 2013, , .		0
135	Mobility in a strongly coupled dusty plasma. , 2014, , .		0
136	Experimental measurement of velocity correlations for two microparticles with ion wakes. , 2014, , .		0
137	10.1063/5.0069141.1. , 2021, , .		0
138	10.1063/1.3204638.1. , 2009, , .		0