John Goree

List of Publications by Year in descending order

138 papers	9,288 citations	41344 49 h-index	38395 95 g-index
138 all docs	138 docs citations	138 times ranked	2322 citing authors

#	Article	IF	Citations
1	Frequency-dependent complex viscosity obtained for a liquid two-dimensional dusty plasma experiment. Physical Review E, 2022, 105, 015209.	2.1	1
2	Fluctuation theorem convergence in a viscoelastic medium demonstrated experimentally using a dusty plasma. Physical Review E, 2021, 104, 035207.	2.1	6
3	Experiment and model for a Stokes layer in a strongly coupled dusty plasma. Physical Review E, 2021, 104, 035208.	2.1	5
4	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.	1.3	3
5	Improvement of the electron beam (e-beam) lunar dust mitigation technology with varying the beam incident angle. Acta Astronautica, 2021, 188, 362-366.	3.2	8
6	10.1063/5.0069141.1. , 2021, , .		0
7	Positive charging of grains in an afterglow plasma is enhanced by ions drifting in an electric field. Physics of Plasmas, 2021, 28, .	1.9	23
8	Shock width measured under liquid and solid conditions in a two-dimensional dusty plasma. Physical Review E, 2021, 104, 055201.	2.1	7
9	Nonlinear Wave Synchronization in a Dusty Plasma Under Microgravity on the International Space Station (ISS). IEEE Transactions on Plasma Science, 2021, 49, 3958-3962.	1.3	4
10	A forced Kortewegâ€“de Vries model for nonlinear mixing of oscillations in a dusty plasma. Physics of Plasmas, 2020, 27, .	1.9	9
11	Shocks propagate in a 2D dusty plasma with less attenuation than due to gas friction alone. Physics of Plasmas, 2020, 27, .	1.9	10
12	Dust mitigation technology for lunar exploration utilizing an electron beam. Acta Astronautica, 2020, 177, 405-409.	3.2	20
13	Experimental determination of shock speed versus exciter speed in a two-dimensional dusty plasma. Physical Review E, 2020, 101, 043211.	2.1	26
14	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, .	1.9	13
15	Diffusive Motion in a 3-D Cluster in PK-4. IEEE Transactions on Plasma Science, 2019, 47, 3100-3106.	1.3	2
16	Particle velocity distribution in a three-dimensional dusty plasma under microgravity conditions. AIP Conference Proceedings, 2018, , .	0.4	7
17	Einstein Frequency Measurement for a Strongly Coupled Dusty Plasma. IEEE Transactions on Plasma Science, 2018, 46, 763-767.	1.3	12
18	Strongly coupled plasmas obey the fluctuation theorem for entropy production. Nature Physics, 2018, 14, 21-24.	16.7	44

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19	Experimental observation of cnoidal waveform of nonlinear dust acoustic waves. Physics of Plasmas, 2018, 25, .	1.9	24
20	Multiple timescales in a strongly coupled dusty plasma revealed by survival-function analysis. Physical Review E, 2018, 98, .	2.1	4
21	Experimental demonstration that a free-falling aerosol particle obeys a fluctuation theorem. Physical Review E, 2018, 97, 050601.	2.1	2
22	Dusty plasma experiment to confirm an expression for the decay of autocorrelation functions. Physical Review E, 2018, 98, 023201.	2.1	5
23	Determination of yield stress of 2D (Yukawa) dusty plasma. Physics of Plasmas, 2017, 24, 103702.	1.9	13
24	Overestimation of Viscosity by the Green-Kubo Method in a Dusty Plasma Experiment. Physical Review Letters, 2017, 118, 195001.	7.8	34
25	Temperature dependence of viscosity in a two-dimensional dusty plasma without the effects of shear thinning. Physics of Plasmas, 2016, 23, 093703.	1.9	20
26	Coupling of an acoustic wave to shear motion due to viscous heating. Physics of Plasmas, 2016, 23, 073707.	1.9	4
27	Particle position and velocity measurement in dusty plasmas using particle tracking velocimetry. Journal of Plasma Physics, 2016, 82, .	2.1	16
28	Laser Heating of 2-D Dusty Plasmas Using a Random Arc Pattern. IEEE Transactions on Plasma Science, 2016, 44, 549-552.	1.3	17
29	Characterization of three-dimensional structure using images. Review of Scientific Instruments, 2015, 86, 033703.	1.3	8
30	Mobility in a strongly coupled dusty plasma. , 2014, , .		0
31	Mobility in a strongly coupled dusty plasma with gas. Physical Review E, 2014, 89, 043107.	2.1	7
32	Dispersion relations for the dust-acoustic wave under experimental conditions. Physics of Plasmas, 2014, 21, .	1.9	16
33	Perpendicular diffusion of a dilute beam of charged dust particles in a strongly coupled dusty plasma. Physics of Plasmas, 2014, 21, .	1.9	4
34	Effect of strong coupling on the dust acoustic instability. Physical Review E, 2014, 89, 013103.	2.1	12
35	Experimental measurement of velocity correlations for two microparticles in a plasma with ion flow. Physical Review E, 2014, 90, 013102.	2.1	18
36	Simulation of Three-Dimensional Dusty Plasmas. IEEE Transactions on Plasma Science, 2014, 42, 2686-2687.	1.3	3

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37	Imaging of the Dust Acoustic Wave to Explore Synchronization. IEEE Transactions on Plasma Science, 2014, 42, 2688-2689.	1.3	7
38	Superdiffusion of two-dimensional Yukawa liquids due to a perpendicular magnetic field. Physical Review E, 2014, 90, 013105.	2.1	47
39	Experimental measurement of velocity correlations for two microparticles with ion wakes. , 2014, , .		0
40	PPPS-2013: Synchronization of the dust acoustic wave. , 2013, , .		0
41	Diagnostics for transport phenomena in strongly coupled dusty plasmas. Plasma Physics and Controlled Fusion, 2013, 55, 124004.	2.1	22
42	Cutoff wave number for shear waves and Maxwell relaxation time in Yukawa liquids. Physical Review E, 2012, 85, 066401.	2.1	41
43	Frequency-dependent shear viscosity of a liquid two-dimensional dusty plasma. Physical Review E, 2012, 85, 066402.	2.1	22
44	Observation of Temperature Peaks due to Strong Viscous Heating in a Dusty Plasma Flow. Physical Review Letters, 2012, 109, 185002.	7.8	75
45	Energy transport in a shear flow of particles in a two-dimensional dusty plasma. Physical Review E, 2012, 86, 056403.	2.1	22
46	Synchronization mechanism and Arnold tongues for dust density waves. Physical Review E, 2012, 85, 046401.	2.1	27
47	Errors in particle tracking velocimetry with high-speed cameras. Review of Scientific Instruments, 2011, 82, 053707.	1.3	76
48	Green-Kubo relation for viscosity tested using experimental data for a two-dimensional dusty plasma. Physical Review E, 2011, 84, 046412.	2.1	62
49	Complex viscosity of 3D Yukawa liquids. AIP Conference Proceedings, 2011, , .	0.4	3
50	Development of nonlinearity in a growing self-excited dust-density wave. Physics of Plasmas, 2011, 18, 013705.	1.9	28
51	Viscosity calculated in simulations of strongly coupled dusty plasmas with gas friction. Physics of Plasmas, 2011, 18, .	1.9	19
52	10.1063/1.3544938.1. , 2011, , .		1
53	Evolution of Shear-Induced Melting in a Dusty Plasma. Physical Review Letters, 2010, 104, 165003.	7.8	56
54	Viscoelasticity of 2D Liquids Quantified in a Dusty Plasma Experiment. Physical Review Letters, 2010, 105, 025002.	7.8	72

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55	Viscoelastic response of Yukawa liquids. Physical Review E, 2010, 81, 056404.	2.1	41
56	Laboratory observation of naturally occuring dust density waves. , 2010, , .		0
57	Dusty plasma diagnostics methods for charge, electron temperature, and ion density. Physics of Plasmas, 2010, 17, .	1.9	8
58	Observation of the spatial growth of self-excited dust-density waves. Physics of Plasmas, 2010, 17, .	1.9	62
59	10.1063/1.3524691.1. , 2010, , .		1
60	Gas flow driven by thermal creep in dusty plasma. Physical Review E, 2009, 80, 046402.	2.1	16
61	Transverse oscillations in a single-layer dusty plasma under microgravity. Physics of Plasmas, 2009, 16, .	1.9	16
62	Time-correlation functions and transport coefficients of two-dimensional Yukawa liquids. Physical Review E, 2009, 79, 026401.	2.1	66
63	Oscillatory particle motion observed in dusty plasma under microgravity. , 2009, , .		0
64	10.1063/1.3204638.1. , 2009, , .		0
65	Superdiffusion and Non-Gaussian Statistics in a Driven-Dissipative 2D Dusty Plasma. Physical Review Letters, 2008, 100, 055003.	7.8	310
66	Experimental study of nonlinear solitary waves in two-dimensional dusty plasma. Physics of Plasmas, 2008, 15, .	1.9	45
67	Non-Gaussian statistics and superdiffusion in a driven-dissipative dusty plasma. Physical Review E, 2008, 78, 046403.	2.1	50
68	SHEAR VISCOSITY OF STRONGLY-COUPLED TWO-DIMENSIONAL YUKAWA LIQUIDS: EXPERIMENT AND MODELING. Modern Physics Letters B, 2007, 21, 1357-1376.	1.9	29
69	Disinfection of S. Mutans Bacteria Using a Plasma Needle at Atmospheric Pressure. , 2007, , .		1
70	Superdiffusion in two-dimensional Yukawa liquids. Physical Review E, 2007, 75, 016405.	2.1	65
71	Diffusive Transport of Microparticles in an RF Glow Discharge Plasma. , 2007, , .		0
72	Accurate particle position measurement from images. Review of Scientific Instruments, 2007, 78, 053704.	1.3	182

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73	Killing of S. mutans Bacteria Using a Plasma Needle at Atmospheric Pressure. IEEE Transactions on Plasma Science, 2006, 34, 1317-1324.	1.3	169
74	Laser-excited shear waves in solid and liquid two-dimensional dusty plasmas. Physics of Plasmas, 2006, 13, 042104.	1.9	35
75	Relationship between dust acoustic waves in two and three dimensions. Physics of Plasmas, 2006, 13, 104510.	1.9	22
76	Shear Viscosity and Shear Thinning in Two-Dimensional Yukawa Liquids. Physical Review Letters, 2006, 96, 145003.	7.8	77
77	Dust release from surfaces exposed to plasma. Physics of Plasmas, 2006, 13, 123504.	1.9	76
78	Laser method of heating monolayer dusty plasmas. Physics of Plasmas, 2006, 13, 032106.	1.9	104
79	Effect of electrostatic plasma oscillations on the kinetic energy of a charged macroparticle. Physics of Plasmas, 2006, 13, 012111.	1.9	11
80	Cutoff Wave Number for Shear Waves in a Two-Dimensional Yukawa System (Dusty Plasma). Physical Review Letters, 2006, 97, 115001.	7.8	62
81	Disinfection of S. Mutans bacteria using a plasma needle at atmospheric pressure. , 2006, , .		0
82	A biological diagnostic of atmosphericpressure plasmas. , 2006, , .		0
83	Molecular-dynamics simulations of viscosity and diffusion in a 2d dusty plasma. , 2006, , .		0
84	Shear Viscosity of Two-Dimensional Yukawa Systems in the Liquid State. Physical Review Letters, 2005, 94, 185002.	7.8	100
85	Phonons in a one-dimensional Yukawa chain: Dusty plasma experiment and model. Physical Review E, 2005, 71, 046410.	2.1	60
86	Shear Flows and Shear Viscosity in a Two-Dimensional Yukawa System (Dusty Plasma). Physical Review Letters, 2004, 93, 155004.	7.8	215
87	Nonlinear Interaction of Compressional Waves in a 2D Dusty Plasma Crystal. Physical Review Letters, 2004, 92, 085001.	7.8	41
88	Decharging of Complex Plasmas: First Kinetic Observations. Physical Review Letters, 2003, 90, 055003.	7.8	81
89	Radiation pressure and gas drag forces on a melamine-formaldehyde microsphere in a dusty plasma. Physics of Plasmas, 2003, 10, 9-20.	1.9	192
90	Transverse Optical Mode in a One-Dimensional Yukawa Chain. Physical Review Letters, 2003, 91, 255003.	7.8	91

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91	Waves and oscillations in plasma crystals. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 533-543.	1.5	18
92	Nonlinear compressional waves in a two-dimensional Yukawa lattice. Physical Review E, 2003, 68, 046402.	2.1	38
93	Compressional and shear wakes in a two-dimensional dusty plasma crystal. Physical Review E, 2003, 68, 056409.	2.1	60
94	Observation of Naturally-Occurring Waves in a Strongly Coupled Plasma. AIP Conference Proceedings, 2003, , .	0.4	0
95	Nonlinear Compressional Pulses in a 2D Crystallized Dusty Plasma. Physical Review Letters, 2002, 88, 215002.	7.8	56
96	Phonon Spectrum in a Plasma Crystal. Physical Review Letters, 2002, 89, 035001.	7.8	176
97	Dispersion relations of longitudinal and transverse waves in two-dimensional screened Coulomb crystals. Physical Review E, 2002, 65, 066402.	2.1	154
98	Acceleration and orbits of charged particles beneath a monolayer plasma crystal. Physics of Plasmas, 2002, 9, 4465-4472.	1.9	42
99	Dynamical Phase Transition in Dust Crystals. AIP Conference Proceedings, 2002, , .	0.4	1
100	Experimental test of two-dimensional melting through disclination unbinding. Physical Review E, 2001, 64, 051404.	2.1	78
101	Ionization instabilities and resonant acoustic modes. Physics of Plasmas, 2001, 8, 5018-5024.	1.9	63
102	Laser-excited Mach cones in a dusty plasma crystal. Physical Review E, 2000, 62, 4162-4176.	2.1	140
103	Mach cone shocks in a two-dimensional Yukawa solid using a complex plasma. Physical Review E, 2000, 61, 5557-5572.	2.1	113
104	Transverse Waves in a Two-Dimensional Screened-Coulomb Crystal (Dusty Plasma). Physical Review Letters, 2000, 84, 5141-5144.	7.8	193
105	Experimental investigation of particle heating in a strongly coupled dusty plasma. Physics of Plasmas, 2000, 7, 3904.	1.9	63
106	Line ratio imaging of a gas discharge. IEEE Transactions on Plasma Science, 1999, 27, 76-77.	1.3	30
107	Particle growth in a sputtering discharge. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 2835-2840.	2.1	75
108	Condensed Plasmas under Microgravity. Physical Review Letters, 1999, 83, 1598-1601.	7.8	444

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109	Mach Cones in a Coulomb Lattice and a Dusty Plasma. Physical Review Letters, 1999, 83, 3649-3652.	7.8	215
110	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.	2.1	37
111	A model of particle temperature in dusty plasmas. , 1998, , .		0
112	Dispersion of Plasma Dust Acoustic Waves in the Strong-Coupling Regime. Physical Review Letters, 1996, 77, 3137-3140.	7.8	514
113	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.	2.1	111
114	Experimental observation of very lowâ€frequency macroscopic modes in a dusty plasma. Physics of Plasmas, 1996, 3, 1212-1219.	1.9	222
115	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.	2.1	66
116	Polarized supersonic plasma flow simulation for charged bodies such as dust particles and spacecraft. Physical Review E, 1995, 52, 5312-5326.	2.1	197
117	Strongly-coupled dusty plasmas. , 1995, , .		1
118	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.	2.1	25
119	Charging of particles in a plasma. Plasma Sources Science and Technology, 1994, 3, 400-406.	3.1	353
120	Fluctuations of the charge on a dust grain in a plasma. IEEE Transactions on Plasma Science, 1994, 22, 151-158.	1.3	268
121	Plasma Crystal: Coulomb Crystallization in a Dusty Plasma. Physical Review Letters, 1994, 73, 652-655.	7.8	1,481
122	Saturation broadening of laserâ€induced fluorescence from plasma ions. Review of Scientific Instruments, 1993, 64, 996-1000.	1.3	22
123	Measurements of ion velocity and density in the plasma sheath. Physics of Fluids B, 1992, 4, 1663-1670.	1.7	68
124	Observation of dust shedding from material bodies in a plasma. Journal of Geophysical Research, 1992, 97, 2935-2942.	3.3	54
125	Collisional plasma sheath model. Physics of Fluids B, 1991, 3, 2796-2804.	1.7	188
126	Magnetic field dependence of sputtering magnetron efficiency. Applied Physics Letters, 1991, 59, 1052-1054.	3.3	25

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127	Ion impact etch anisotropy downstream from diffusion plasma sources. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 3178-3180.	2.1	4
128	Laserâ€induced fluorescence characterization of a multidipole filament plasma. Physics of Fluids B, 1991, 3, 2913-2921.	1.7	47
129	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.	2.1	100
130	Electron and ion transport in magnetron plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1990, 8, 1623-1626.	2.1	23
131	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.	2.1	31
132	Pressure dependence of ionization efficiency in sputtering magnetrons. Applied Physics Letters, 1990, 57, 2080-2082.	3.3	11
133	Monte Carlo simulation of ionization in a magnetron plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1990, 8, 1627-1631.	2.1	29
134	Model of energetic electron transport in magnetron discharges. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1990, 8, 30-37.	2.1	132
135	Lowâ€frequency turbulent transport in magnetron plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1989, 7, 1014-1018.	2.1	49
136	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.	1.3	1
137	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.	2.1	41
138	Preservation of a Dust Crystal as it Falls in an Afterglow Plasma. Frontiers in Physics, 0, 10, .	2.1	14