Dietmar Block

List of Publications by Year
in descending order

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72 papers	2,388 citations	201575 27 h-index	206029 48 g-index
73 all docs	73 docs citations	73 times ranked	732 citing authors

#	Article	IF	Citations
1	Configurational temperature of multispecies dusty plasmas. Physical Review E, 2021, 104, 045205.	0.8	3
2	High-precision in situ measurements of size and optical properties of single microparticles in an RF plasma. Physics of Plasmas, 2021, 28, .	0.7	5
3	High-precision in-situ size measurements of single microparticles in an RF plasma. Physics of Plasmas, 2019, 26, .	0.7	16
4	Modification of microparticles due to intense laser manipulation. Physics of Plasmas, 2019, 26, 033701.	0.7	2
5	Dusty (complex) plasmasâ€”routes towards magnetized and polydisperse systems. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 063001.	0.6	21
6	Entropy Measurement in Strongly Coupled Complex Plasmas. Physical Review Letters, 2019, 123, 225001.	2.9	18
7	Photophoretic force measurement on microparticles in binary complex plasmas. Physics of Plasmas, 2018, 25, .	0.7	15
8	Diagnostics and characterization of nanodust and nanodusty plasmas. European Physical Journal D, 2018, 72, 1.	0.6	32
9	Microphysics of liquid complex plasmas in equilibrium and non-equilibrium systems. European Physical Journal D, 2018, 72, 1.	0.6	12
10	Generation of two-dimensional binary mixtures in complex plasmas. Physics of Plasmas, 2017, 24, .	0.7	31
11	Mode Excitation in Finite Dust Clusters Using an Optical Trap. IEEE Transactions on Plasma Science, 2016, 44, 479-482.	0.6	5
12	Charging of multiple grains in subsonic and supersonic plasma flows. Plasma Physics and Controlled Fusion, 2015, 57, 014019.	0.9	22
13	Selective mode excitation in finite size plasma crystals by diffusely reflected laser light. Physics of Plasmas, 2015, 22, .	0.7	6
14	An optical tweezer for complex plasmas. Physics of Plasmas, 2015, 22, .	0.7	12
15	Controlling strongly correlated dust clusters with lasers. Journal Physics D: Applied Physics, 2014, 47, 383001.	1.3	12
16	Sheared and unsheared rotation of driven dust clusters. Physics of Plasmas, 2014, 21, .	0.7	7
17	Network analysis of three-dimensional complex plasma clusters in a rotating electric field. Physical Review E, 2014, 89, 023104.	0.8	8
18	Analyzing the liquid state of two-dimensional dust clusters: The instantaneous normal mode approach. Physical Review E, 2013, 87, .	0.8	41

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19	Particle Tracking Velocimetry of Dusty Plasmas Using Stereoscopic In-Line Holography. IEEE Transactions on Plasma Science, 2013, 41, 779-783.	0.6	3
20	From transport to disorder: Thermodynamic properties of finite dust clouds. Physical Review E, 2013, 87, 063102.	0.8	14
21	Crystal and fluid modes in three-dimensional finite dust clouds. New Journal of Physics, 2013, 15, 113021.	1.2	11
22	Laser heating of finite two-dimensional dust clusters: B. Simulations. Physics of Plasmas, 2012, 19, 023701.	0.7	22
23	Laser heating of finite two-dimensional dust clusters: A. Experiments. Physics of Plasmas, 2012, 19, .	0.7	46
24	String structures in driven 3D complex-plasma clusters. Europhysics Letters, 2012, 100, 35001.	0.7	10
25	Dust grain charging in a wake of other grains. Physics of Plasmas, 2012, 19, 123703.	0.7	39
26	Phase Transitions of Finite Dust Clusters in Dusty Plasmas. Contributions To Plasma Physics, 2012, 52, 795-803.	0.5	23
27	Wake Formation and Wake Field Effects in Complex Plasmas. Contributions To Plasma Physics, 2012, 52, 804-812.	0.5	52
28	Charging and coupling of a vertically aligned particle pair in the plasma sheath. Physics of Plasmas, 2012, 19, .	0.7	47
29	Instantaneous Normal Mode Analysis of Melting of Finite Dust Clusters. Physical Review Letters, 2012, 108, 225001.	2.9	37
30	Effect of rotating electric field on 3D complex (dusty) plasma. Physics of Plasmas, 2011, 18, 063706.	0.7	12
31	Melting scenarios for three-dimensional dusty plasma clusters. Physical Review E, 2011, 84, 056402.	0.8	48
32	Complex plasmas: a laboratory for strong correlations. Reports on Progress in Physics, 2010, 73, 066501.	8.1	336
33	Finite dust clusters in dusty plasmas. Plasma Physics and Controlled Fusion, 2010, 52, 124028.	0.9	26
34	On the influence of wakefields on three-dimensional particle arrangements. Physics of Plasmas, 2010, 17, .	0.7	59
35	Charging and dynamics of a dust grain in the wake of another grain in flowing plasmas. Physics of Plasmas, 2010, 17, 103703.	0.7	64
36	Stereoscopic Digital Holography. IEEE Transactions on Plasma Science, 2010, 38, 897-900.	0.6	5

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37	Imaging Diagnostics in Dusty Plasmas. Springer Series on Atomic, Optical, and Plasma Physics, 2010, , 135-153.	0.1	9
38	Structure and Dynamics of Finite Dust Clusters. Springer Series on Atomic, Optical, and Plasma Physics, 2010, , 155-174.	0.1	0
39	Structure and Phase Transitions of Yukawa Balls. Contributions To Plasma Physics, 2009, 49, 281-302.	0.5	13
40	Complex plasmas: forces and dynamical behaviour. Plasma Physics and Controlled Fusion, 2008, 50, 124003.	0.9	15
41	Use of heart rate variability analysis to determine the risk of cardiac ischaemia in highâ€risk patients undergoing general anaesthesia. Anaesthesia, 2008, 63, 1167-1173.	1.8	10
42	3D dust clouds (Yukawa balls) in strongly coupled dusty plasmas. , 2008, , .		0
43	Energy landscape in 3D finite dust clusters derived from shell transitions. Journal of Physics Condensed Matter, 2008, 20, 404204.	0.7	5
44	Probability of metastable configurations in spherical three-dimensional Yukawa crystals. Physical Review E, 2008, 78, 036408.	0.8	30
45	Classical and quantum Coulomb crystals. Physics of Plasmas, 2008, 15, .	0.7	82
46	Shell transitions between metastable states of Yukawa balls. Physics of Plasmas, 2008, 15, 073710.	0.7	28
47	Digital in-line holography of dusty plasmas. Physics of Plasmas, 2008, 15, .	0.7	34
48	Experiments on metastable states of three-dimensional trapped particle clusters. Physics of Plasmas, 2008, 15, 040701.	0.7	39
49	Structural and dynamical properties of Yukawa balls. Plasma Physics and Controlled Fusion, 2007, 49, B109-B116.	0.9	23
50	Improved conditional averaging technique for plasma fluctuation diagnostics. Plasma Physics and Controlled Fusion, 2007, 49, 485-497.	0.9	12
51	Experimental comparison of statistical and spatio-temporal probe diagnostics. Plasma Physics and Controlled Fusion, 2007, 49, 1707-1718.	0.9	5
52	Dust confinement and dust-acoustic waves in weakly magnetized anodic plasmas. Physics of Plasmas, 2006, 13, 042105.	0.7	102
53	Ground state of a confined Yukawa plasma. Physical Review E, 2006, 74, 056403.	0.8	60
54	Structural Properties of Screened Coulomb Balls. Physical Review Letters, 2006, 96, 075001.	2.9	129

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55	Prospects and limitations of conditional averaging. Physica Scripta, 2006, T122, 25-33.	1.2	19
56	A super-resolution method for spatio-temporal plasma diagnostics. Plasma Physics and Controlled Fusion, 2006, 48, 419-431.	0.9	3
57	Prediction of Postoperative Myocardial Ischemia by Fractal Heart Rate Dynamics. Anesthesia and Analgesia, 2005, 100, 289.	1.1	5
58	Dust acoustic waves in a magnetized anodic plasma. AIP Conference Proceedings, 2005, , .	0.3	0
59	Confinement of Coulomb balls. Physics of Plasmas, 2005, 12, 122102.	0.7	101
60	3D Coulomb balls: experiment and simulation. Journal of Physics: Conference Series, 2005, 11, 234-247.	0.3	34
61	Measurement of the ion drag force on free falling microspheres in a plasma. Physics of Plasmas, 2004, 11, 5690-5696.	0.7	30
62	Electron Density Measurements in Magnetized Complex Plasmas. IEEE Transactions on Plasma Science, 2004, 32, 742-745.	0.6	3
63	Observation of Mode like Coherent Structures in Curved Magnetic Fields of a Simple Magnetized Torus. Contributions To Plasma Physics, 2004, 44, 335-346.	0.5	20
64	Measurements of the Ion Drag Force on Micrometer Sized Particles in the Double Plasma Device DODO. IEEE Transactions on Plasma Science, 2004, 32, 582-585.	0.6	12
65	Dust Coulomb Balls: Three-Dimensional Plasma Crystals. Physical Review Letters, 2004, 93, 165004.	2.9	247
66	Resonance cones in a dusty magnetized plasma. Physics of Plasmas, 2003, 10, 4627-4632.	0.7	11
67	Fluctuation induced transport of driven drift waves: I. Monochromatic waves. Plasma Physics and Controlled Fusion, 2003, 45, 413-425.	0.9	6
68	Fluctuation induced transport of driven drift waves: II. Weak turbulence. Plasma Physics and Controlled Fusion, 2003, 45, 427-437.	0.9	4
69	The early phase of spreadFdevelopment studied in situ with impedance and Langmuir probes. Journal of Geophysical Research, 2001, 106, 12765-12779.	3.3	6
70	Synchronization of drift waves. Physical Review E, 2001, 63, 056401.	0.8	31
71	Mode Selective Control of Drift Wave Turbulence. Physical Review Letters, 2001, 86, 5711-5714.	2.9	82
72	Chaos control and taming of turbulence in plasma devices. Physics of Plasmas, 2001, 8, 1961-1968.	0.7	56