

Daniel Gordon

List of Publications by Year in descending order

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89
papers

772
citations

567281

15
h-index

552781

26
g-index

91
all docs

91
docs citations

91
times ranked

642
citing authors

#	ARTICLE	IF	CITATIONS
1	TurboPy: A lightweight python framework for computational physics. Computer Physics Communications, 2021, 258, 107607.	7.5	1
2	Special unitary particle pusher for extreme fields. Computer Physics Communications, 2021, 258, 107628.	7.5	11
3	Modeling of short-pulse laser-metal interactions in the warm dense matter regime using the two-temperature model. Physical Review E, 2021, 103, 033204.	2.1	10
4	Seed source for plasma compression in the long wavelength infrared. Physics of Plasmas, 2021, 28, .	1.9	1
5	Application of Directed Relational Graph to Air Plasma Chemistry During Plasma Relaxation. IEEE Transactions on Plasma Science, 2021, 49, 1732-1738.	1.3	1
6	Ultrabroadband microwave radiation from near- and mid-infrared laser-produced plasmas in air. Physical Review A, 2021, 104, .	2.5	7
7	Thermionic emission of electrons from metal surfaces in the warm dense matter regime. Physics of Plasmas, 2021, 28, 083503.	1.9	2
8	Nonlinear Laser-Dielectric Optical Media Interaction Modeling and Characterization. , 2021, , .		0
9	Intense Gamma Ray Pulses From Ultra-Relativistic Laser-Plasma Interactions*. , 2021, , .		0
10	Dynamic sheath formation and sub-THz radiation from laser-metal interactions. Physics of Plasmas, 2020, 27, .	1.9	7
11	Broadband terahertz radiation from metal targets irradiated by a short pulse laser. Physics of Plasmas, 2020, 27, .	1.9	5
12	Vortex dynamics and applications to gaseous optical elements. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 2104.	2.1	1
13	Modeling of a compact gas vortex lens for high-power lasers. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 1376.	2.1	1
14	Compression of Terawatt Long-Wavelength Laser Pulses Through Backward Raman Amplification. , 2018, , .		1
15	Ideal form of optical plasma lenses. Physics of Plasmas, 2018, 25, 063101.	1.9	6
16	Lensing properties of rotational gas flow. Applied Optics, 2018, 57, 9392.	1.8	4
17	Staging and laser acceleration of ions in underdense plasma. AIP Conference Proceedings, 2017, , .	0.4	1
18	Superponderomotive regime of tunneling ionization. Physical Review A, 2017, 95, .	2.5	5

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19	Laser acceleration of protons with an optically shaped, near-critical hydrogen gas target. AIP Conference Proceedings, 2017, , .	0.4	3
20	Backward Raman amplification in the long-wavelength infrared. Physics of Plasmas, 2017, 24, 033107.	1.9	7
21	First Benchmark of Relativistic Photoionization Theories against 3D ab initio Simulation. Physical Review Letters, 2017, 118, 133201.	7.8	2
22	A nonlinear plasma retroreflector for single pulse Compton backscattering. AIP Conference Proceedings, 2016, , .	0.4	0
23	Prospects of coherent Compton backscattered X-rays from self-generated wiggler in a laser wakefield accelerator. AIP Conference Proceedings, 2016, , .	0.4	0
24	Nonlinear frequency shift in Raman backscattering and its implications for plasma diagnostics. Physics of Plasmas, 2016, 23, .	1.9	11
25	Laser-Accelerated Ions from a Shock-Compressed Gas Foil. Physical Review Letters, 2016, 117, 165001.	7.8	38
26	Intense underwater laser propagation, ionization and heating for remote shaped plasma generation. , 2016, , .		0
27	Plasma lenses for ultrashort multi-petawatt laser pulses. Physics of Plasmas, 2015, 22, .	1.9	17
28	Microwave diagnostics of plasma filaments left in the wake of high power femtosecond laser pulse. , 2015, , .		0
29	Simulation of free-space optical guiding structure based on colliding gas flows. Applied Optics, 2015, 54, F144.	2.1	7
30	Amplitude flux, probability flux, and gauge invariance in the finite volume scheme for the Schrödinger equation. Journal of Computational Physics, 2015, 280, 457-464.	3.8	2
31	Shaping gas jet plasma density profile by laser generated shock waves. Journal of Applied Physics, 2014, 116, .	2.5	25
32	Model for atomic dielectric response in strong, time-dependent laser fields. Physical Review A, 2014, 89, .	2.5	10
33	Solution of relativistic quantum optics problems using clusters of graphical processing units. Journal of Computational Physics, 2014, 267, 50-62.	3.8	3
34	Fully explicit nonlinear optics model in a particle-in-cell framework. Journal of Computational Physics, 2013, 250, 388-402.	3.8	10
35	Time dependent Schrödinger equation on arbitrary structured grids: Application to photoionization. Journal of Computational Physics, 2012, 231, 6349-6359.	3.8	5
36	Remote lasing in air by recombination and electron impact excitation of molecular nitrogen. Journal of Applied Physics, 2012, 111, 033105.	2.5	46

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37	Remotely induced atmospheric lasing. Applied Physics Letters, 2011, 98, .	3.3	64
38	Measurements and simulations of shock wave generated plasma-vacuum interface. Physics of Plasmas, 2011, 18, .	1.9	12
39	Plasma Density Tapering for Laser Wakefield Acceleration of Electrons and Protons. , 2010, , .		2
40	Measurements of colliding shock wave and supersonic gas flow. Applied Physics Letters, 2010, 97, 191501.	3.3	5
41	Quasi-remote laser pulse compression and applications. , 2010, , .		0
42	THz generation in plasmas using two-color laser pulses. , 2010, , .		2
43	Propagation of ultrashort laser pulses in optically ionized gases. Physics of Plasmas, 2010, 17, .	1.9	10
44	Measurement of Electro-Optic Shock and Electron Acceleration in a Strongly Cavitated Laser Wakefield Accelerator. Physical Review Letters, 2010, 105, 105001.	7.8	15
45	Nonlinear RF and space-charge induced emittance growth in a thermionic injector accelerating cavity. , 2010, , .		0
46	Measurements of the correlation between plasma bubble dynamics and electron trapping in a laser wakefield accelerator. , 2010, , .		0
47	Particle-in-cell modeling of RF-gated thermionic electron guns. , 2010, , .		0
48	High average current injectors for free electron lasers. , 2010, , .		0
49	Ultra-short pulse laser-generated plasma flares in air and on dielectric surfaces. , 2010, , .		0
50	THz generation in plasmas using two-color laser pulses. , 2010, , .		0
51	Summary Report on Beam & Radiation Generation, Monitoring & Control. , 2009, , .		0
52	Laser heating of air plasmas seeded by ultrashort pulse filaments. , 2009, , .		0
53	Nonlinear conversion of photon spin to photon orbital angular momentum. Optics Letters, 2009, 34, 3280.	3.3	19
54	Characterization of underwater laser acoustic source for navy applications. , 2009, , .		3

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55	Second harmonic generation and off-axis electrons in the blowout regime of a Laser Wakefield Accelerator. , 2009, , .		0
56	Electro-Optic Shocks from Ultraintense Laser-Plasma Interactions. Physical Review Letters, 2008, 101, 045004.	7.8	18
57	Observation of Large-Angle Quasimonoenergetic Electrons from a Laser Wakefield. Physical Review Letters, 2008, 100, 215002.	7.8	19
58	GUIDING OF HIGH LASER INTENSITIES IN LONG PLASMA CHANNELS. International Journal of Modern Physics B, 2007, 21, 361-371.	2.0	1
59	Propagation of femtosecond filaments in air: (3+1) dimensional numerical simulations versus experiments. , 2007, , .		0
60	Laser plasma acceleration experiment at the naval research laboratory. , 2007, , .		0
61	Direct measurements of the dynamics of self-guided femtosecond laser filaments in air. IEEE Transactions on Plasma Science, 2006, 34, 249-253.	1.3	9
62	Generation and measurements of high energy injection electrons from the high density laser ionization and ponderomotive acceleration. Physics of Plasmas, 2005, 12, 010701-010701-4.	1.9	7
63	First demonstration of a staged all-optical laser wakefield acceleration. Physics of Plasmas, 2005, 12, 100702.	1.9	27
64	Ultraviolet light generation by intense laser filaments propagating in air. , 2005, , .		1
65	Quasimonoenergetic electrons from unphased injection into channel guided laser wakefield accelerators. Physical Review E, 2005, 71, 026404.	2.1	43
66	Prospects for an Integrated Experimental Demonstration of a Channel-Guided, Standard Laser Wakefield Accelerator. IEEE International Conference on Plasma Science, 2005, , .	0.0	0
67	Trapping and acceleration of nonideal injected electron bunches in laser Wakefield accelerators. IEEE Transactions on Plasma Science, 2005, 33, 712-722.	1.3	14
68	Laser Injection and Channel Guided Acceleration of Electrons in a Laser Wakefield Accelerator. IEEE International Conference on Plasma Science, 2005, , .	0.0	0
69	Generation of high-energy electrons in a double gas jet and laser wakefield acceleration. IEEE Transactions on Plasma Science, 2005, 33, 735-738.	1.3	3
70	Measurements of intense femtosecond laser pulse propagation in air. Physics of Plasmas, 2005, 12, 056705.	1.9	21
71	Longitudinal compression of short laser pulses in air. Applied Physics Letters, 2004, 84, 4080-4082.	3.3	27
72	Propagation of ultra-short, intense laser pulses in air. Physics of Plasmas, 2004, 11, 2865-2874.	1.9	67

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73	The production of high-energy electrons from the interaction of an intense laser pulse with an underdense plasma. Journal of Modern Optics, 2003, 50, 673-681.	1.3	1
74	Electron distribution function in short-pulse photoionization. Physical Review E, 2003, 67, 056407.	2.1	13
75	Electron trajectories in the magnetic field of capillary discharge: Application to laser wakefield accelerators in plasma channel. Physics of Plasmas, 2003, 10, 2545-2551.	1.9	4
76	Raman sidescatter in numerical models of short pulse laser plasma interactions. Physics of Plasmas, 2002, 9, 1157-1163.	1.9	11
77	Seeding of the forward Raman instability by ionization fronts and Raman backscatter. Physical Review E, 2001, 64, 046404.	2.1	30
78	A ponderomotive guiding center particle-in-cell code for efficient modeling of laser-plasma interactions. IEEE Transactions on Plasma Science, 2000, 28, 1135-1143.	1.3	68
79	Wakefields generated by a tightly focused laser beam. , 0, , .		0
80	Electron distribution function due to ionizing laser pulse. , 0, , .		0
81	Particle-in-cell simulations of optical injectors for plasma accelerators. , 0, , .		2
82	Simulation of accelerated electron spectra in laser wakefield accelerators. , 0, , .		3
83	Guided electric discharges induced by femtosecond laser filaments. , 0, , .		0
84	Defining optical injector parameters for optimal acceleration bunches. , 0, , .		0
85	Nonlinear laser synchrotron source experiment for tunable, monochromatic X-rays. , 0, , .		0
86	Remote atmospheric breakdown using intense femtosecond laser pulses. , 0, , .		0
87	Trapping and acceleration of nonideal injected electron bunches in laser wakefield accelerators. , 0, , .		0
88	Terahertz Radiation from Optical Rectification of a Modulated Laser Pulse. , 0, , .		0
89	First Demonstration of a Staged Optical Injection and Laser Wakefield Acceleration. , 0, , .		0