

Rachel Dance

List of Publications by Year in descending order

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Version: 2024-02-01

24
papers

756
citations

759233

12
h-index

610901

24
g-index

24
all docs

24
docs citations

24
times ranked

1041
citing authors

#	ARTICLE	IF	CITATIONS
1	Near-100 MeV protons via a laser-driven transparency-enhanced hybrid acceleration scheme. Nature Communications, 2018, 9, 724.	12.8	307
2	High efficiency proton beam generation through target thickness control in femtosecond laser-plasma interactions. Applied Physics Letters, 2014, 104, .	3.3	55
3	Towards optical polarization control of laser-driven proton acceleration in foils undergoing relativistic transparency. Nature Communications, 2016, 7, 12891.	12.8	54
4	Exotic Dense-Matter States Pumped by a Relativistic Laser Plasma in the Radiation-Dominated Regime. Physical Review Letters, 2013, 110, 125001.	7.8	49
5	Optically controlled dense current structures driven by relativistic plasma aperture-induced diffraction. Nature Physics, 2016, 12, 505-512.	16.7	48
6	Detailed analysis of hollow ions spectra from dense matter pumped by X-ray emission of relativistic laser plasma. Physics of Plasmas, 2014, 21, 031213.	1.9	33
7	Ellipsoidal plasma mirror focusing of high power laser pulses to ultra-high intensities. Physics of Plasmas, 2016, 23, 033106.	1.9	27
8	Measurement of the angle, temperature and flux of fast electrons emitted from intense laser-solid interactions. Journal of Plasma Physics, 2015, 81, .	2.1	23
9	Hot electron production in laser solid interactions with a controlled pre-pulse. Physics of Plasmas, 2014, 21, .	1.9	22
10	Plasma scale-length effects on electron energy spectra in high-irradiance laser plasmas. Physical Review E, 2016, 93, 043201.	2.1	21
11	Laboratory measurements of resistivity in warm dense plasmas relevant to the microphysics of brown dwarfs. Nature Communications, 2015, 6, 8742.	12.8	17
12	Enhanced laser-energy coupling to dense plasmas driven by recirculating electron currents. New Journal of Physics, 2018, 20, 033021.	2.9	16
13	Development of Focusing Plasma Mirrors for Ultraintense Laser-Driven Particle and Radiation Sources. Quantum Beam Science, 2018, 2, 1.	1.2	13
14	Dual Ion Species Plasma Expansion from Isotopically Layered Cryogenic Targets. Physical Review Letters, 2018, 120, 204801.	7.8	11
15	Intra-pulse transition between ion acceleration mechanisms in intense laser-foil interactions. Physics of Plasmas, 2016, 23, 063116.	1.9	9
16	Time-resolved measurements of fast electron recirculation for relativistically intense femtosecond scale laser-plasma interactions. Scientific Reports, 2018, 8, 4525.	3.3	8
17	Single shot, temporally and spatially resolved measurements of fast electron dynamics using a chirped optical probe. Journal of Instrumentation, 2014, 9, P03003-P03003.	1.2	7
18	Micron-scale mapping of megagauss magnetic fields using optical polarimetry to probe hot electron transport in petawatt-class laser-solid interactions. Scientific Reports, 2017, 7, 8347.	3.3	7

#	ARTICLE	IF	CITATIONS
19	Radiation Pressure-Driven Plasma Surface Dynamics in Ultra-Intense Laser Pulse Interactions with Ultra-Thin Foils. Applied Sciences (Switzerland), 2018, 8, 336.	2.5	7
20	Influence of laser polarization on collective electron dynamics in ultraintense laser-foil interactions. High Power Laser Science and Engineering, 2016, 4, .	4.6	6
21	Role of magnetic field evolution on filamentary structure formation in intense laser-foil interactions. High Power Laser Science and Engineering, 2019, 7, .	4.6	5
22	Energy absorption and coupling to electrons in the transition from surface- to volume-dominant intense laser-plasma interaction regimes. New Journal of Physics, 2020, 22, 053044.	2.9	5
23	Influence of target-rear-side short scale length density gradients on laser-driven proton acceleration. Plasma Physics and Controlled Fusion, 2021, 63, 114001.	2.1	3
24	Influence of spatial-intensity contrast in ultraintense laser-plasma interactions. Scientific Reports, 2022, 12, 1910.	3.3	3