Arnaud ColaÃ¯tis

List of Publications by Year
in descending order

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34	698	430874	552781
papers	citations	18	26
		h-index	g-index

35	35	35	838
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bremsstrahlung cannon design for shock ignition relevant regime. Review of Scientific Instruments, 2021, 92, 013501.	1.3	7
2	Inverse ray tracing on icosahedral tetrahedron grids for non-linear laser plasma interaction coupled to 3D radiation hydrodynamics. Journal of Computational Physics, 2021, 443, 110537.	3.8	11
3	Experimental characterization of hot-electron emission and shock dynamics in the context of the shock ignition approach to inertial confinement fusion. Physics of Plasmas, 2021, 28, 103302.	1.9	10
4	Impact of the Langdon effect on crossed-beam energy transfer. Nature Physics, 2020, 16, 181-185.	16.7	37
5	Experimental investigation of the collective stimulated Brillouin and Raman scattering of multiple laser beams in inertial confinement fusion experiments. Plasma Physics and Controlled Fusion, 2020, 62, 014024.	2.1	10
6	Preliminary results from the LMJ-PETAL experiment on hot electrons characterization in the context of shock ignition. High Energy Density Physics, 2020, 36, 100796.	1.5	19
7	Study of self-diffraction from laser generated plasma gratings in the nanosecond regime. Physics of Plasmas, 2019, 26, 073108.	1.9	4
8	Adaptive inverse ray-tracing for accurate and efficient modeling of cross beam energy transfer in hydrodynamics simulations. Physics of Plasmas, 2019, 26, 072706.	1.9	16
9	Characterization of suprathermal electrons inside a laser accelerated plasma via highly-resolved Kâ-emission. Nature Communications, 2019, 10, 4212.	12.8	22
10	Real and complex valued geometrical optics inverse ray-tracing for inline field calculations. Physics of Plasmas, 2019, 26, 032301.	1.9	18
11	Progress in understanding the role of hot electrons for the shock ignition approach to inertial confinement fusion. Nuclear Fusion, 2019, 59, 032012.	3.5	27
12	Measurements of parametric instabilities at laser intensities relevant to strong shock generation. Physics of Plasmas, 2018, 25, .	1.9	23
13	A tesselation-based model for intensity estimation and laser plasma interactions calculations in three dimensions. Physics of Plasmas, 2018, 25, 033114.	1.9	9
14	Crossed-beam energy transfer: polarization effects and evidence of saturation. Plasma Physics and Controlled Fusion, 2018, 60, 054017.	2.1	17
15	A plasma amplifier to combine multiple beams at NIF. Physics of Plasmas, 2018, 25, .	1.9	17
16	Resonance absorption of a broadband laser pulse. Physics of Plasmas, 2018, 25, .	1.9	19
17	Towards a novel stellar opacity measurement scheme using stability properties of double ablation front structures. Physics of Plasmas, 2018, 25, 072707.	1.9	1
18	Experimental observation of parametric instabilities at laser intensities relevant for shock ignition. Europhysics Letters, 2017, 117, 35001.	2.0	21

#	Article	IF	Citations
19	The role of hot electrons in the dynamics of a laser-driven strong converging shock. Physics of Plasmas, 2017, 24, .	1.9	17
20	Enhanced hot-electron production and strong-shock generation in hydrogen-rich ablators for shock ignition. Physics of Plasmas, 2017, 24, .	1.9	19
21	Experimental Investigation of the Collective Raman Scattering of Multiple Laser Beams in Inhomogeneous Plasmas. Physical Review Letters, 2016, 117, 235002.	7.8	38
22	Crossed beam energy transfer: Assessment of the paraxial complex geometrical optics approach versus a time-dependent paraxial method to describe experimental results. Physics of Plasmas, 2016, 23, .	1.9	20
23	Modeling of energy transfer between two crossing smoothed laser beams in a plasma with flow profile. Journal of Physics: Conference Series, 2016, 717, 012096.	0.4	2
24	Influence of laser induced hot electrons on the threshold for shock ignition of fusion reactions. Physics of Plasmas, 2016, 23, .	1.9	20
25	Physics of laser-plasma interaction for shock ignition of fusion reactions. Plasma Physics and Controlled Fusion, 2016, 58, 014018.	2.1	7
26	Coupled hydrodynamic model for laser-plasma interaction and hot electron generation. Physical Review E, 2015, 92, 041101.	2.1	41
27	Modeling of the cross-beam energy transfer with realistic inertial-confinement-fusion beams in a large-scale hydrocode. Physical Review E, 2015, 91, 013102.	2.1	27
28	Towards modeling of nonlinear laser-plasma interactions with hydrocodes: The thick-ray approach. Physical Review E, 2014, 89, 033101.	2.1	28
29	Recent Ice Ages on Mars: The role of radiatively active clouds and cloud microphysics. Geophysical Research Letters, 2014, 41, 4873-4879.	4.0	75
30	A thermal plume model for the Martian convective boundary layer. Journal of Geophysical Research E: Planets, 2013, 118, 1468-1487.	3.6	61
31	Optical Thomson scattering measurements of cylindrical wire array parameters. Physics of Plasmas, 2012, 19, .	1.9	19
32	Velocity and temperature measurements of Z pinch plasmas using optical Thomson scattering. , 2012, , .		0
33	Optical Thomson Scattering Measurements of Plasma Parameters in the Ablation Stage of Wire Array<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Z</mml:mi></mml:math>Pinches. Physical Review Letters, 2012, 108, 145002.	7.8	34
34	Velocity and temperature measurements of Z pinch plasmas using optical Thomson scattering. , 2011, , .		0