

# P-E Masson-Laborde

## List of Publications by Year in descending order

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46  
papers

795  
citations

471509

17  
h-index

526287

27  
g-index

47  
all docs

47  
docs citations

47  
times ranked

740  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quasimonoenergetic Electron Beams with Relativistic Energies and Ultrashort Duration from Laser-Solid Interactions at 0.5ÅkHz. <i>Physical Review Letters</i> , 2009, 103, 235001.	7.8	67
2	Harmonic decomposition to describe the nonlinear evolution of stimulated Brillouin scattering. <i>Physics of Plasmas</i> , 2006, 13, 022703.	1.9	50
3	Evolution of the stimulated Raman scattering instability in two-dimensional particle-in-cell simulations. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	47
4	Quasi-monoenergetic electron beams generated from 7 TW laser pulses in N2 and He gas targets. <i>Laser and Particle Beams</i> , 2008, 26, 147-155.	1.0	46
5	Experimental Investigation of the Collective Raman Scattering of Multiple Laser Beams in Inhomogeneous Plasmas. <i>Physical Review Letters</i> , 2016, 117, 235002.	7.8	38
6	Giga-electronvolt electrons due to a transition from laser wakefield acceleration to plasma wakefield acceleration. <i>Physics of Plasmas</i> , 2014, 21, 123113.	1.9	34
7	Driven Spatially Autoresonant Stimulated Raman Scattering in the Kinetic Regime. <i>Physical Review Letters</i> , 2012, 108, 145003.	7.8	33
8	Probing the deep nonlinear stage of the ablative Rayleigh-Taylor instability in indirect drive experiments on the National Ignition Facility. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	30
9	Laser light triggers increased Raman amplification in the regime of nonlinear Landau damping. <i>Nature Communications</i> , 2014, 5, 4158.	12.8	28
10	Development and validation of the TROLL radiation-hydrodynamics code for 3D hohlraum calculations. <i>Nuclear Fusion</i> , 2019, 59, 032010.	3.5	25
11	Temperature scaling of hot electrons produced by a tightly focused relativistic-intensity laser at 0.5 kHz repetition rate. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	24
12	Modeling crossed-beam energy transfer for inertial confinement fusion. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	24
13	Experimental Evidence of the Collective Brillouin Scattering of Multiple Laser Beams Sharing Acoustic Waves. <i>Physical Review Letters</i> , 2016, 116, 235002.	7.8	23
14	Spatially autoresonant stimulated Raman scattering in inhomogeneous plasmas in the kinetic regime. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	22
15	Laser plasma interaction on rugby hohlraum on the Omega Laser Facility: Comparisons between cylinder, rugby, and elliptical hohlraums. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	22
16	Progress on LMJ targets for ignition. <i>Plasma Physics and Controlled Fusion</i> , 2009, 51, 124018.	2.1	20
17	Experimental investigation of the stimulated Brillouin scattering growth and saturation at 526 and 351Ånm for direct drive and shock ignition. <i>Physics of Plasmas</i> , 2012, 19, 012705.	1.9	18
18	Enhanced ion acceleration using the high-energy petawatt PETAL laser. <i>Matter and Radiation at Extremes</i> , 2021, 6, .	3.9	18

#	ARTICLE	IF	CITATIONS
19	Progress on LMJ targets for ignition. Journal of Physics: Conference Series, 2010, 244, 022009.	0.4	17
20	Modeling parametric scattering instabilities in large-scale expanding plasmas. European Physical Journal Special Topics, 2006, 133, 247-251.	0.2	15
21	Stimulated Brillouin scattering reduction induced by self-focusing for a single laser speckle interacting with an expanding plasma. Physics of Plasmas, 2014, 21, .	1.9	15
22	A unified modeling of wave mixing processes with the ray tracing method. Physics of Plasmas, 2019, 26, .	1.9	15
23	Spatial and Transient Effects during the Amplification of a Picosecond Pulse Beam by a Nanosecond Pump. Physical Review Letters, 2016, 117, 145001.	7.8	14
24	Measuring heat flux from collective Thomson scattering with non-Maxwellian distribution functions. Physics of Plasmas, 2019, 26, .	1.9	13
25	Modeling of stimulated Brillouin scattering in expanding plasmas. Journal of Physics: Conference Series, 2008, 112, 022031.	0.4	12
26	Demonstrated high performance of gas-filled rugby-shaped hohlraums on Omega. Physics of Plasmas, 2014, 21, 074504.	1.9	11
27	Reduction of stimulated Brillouin backscattering with plasma beam smoothing. Physics of Plasmas, 2015, 22, .	1.9	11
28	Cross-beam energy transfer: On the accuracy of linear stationary models in the linear kinetic regime. Physics of Plasmas, 2018, 25, 052702.	1.9	11
29	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
30	Numerical investigation of spallation neutrons generated from petawatt-scale laser-driven proton beams. Matter and Radiation at Extremes, 2022, 7, .	3.9	9
31	Laser-plasma interaction in the context of inertial fusion: experiments and modeling. European Physical Journal D, 2007, 44, 283-288.	1.3	8
32	Time history prediction of direct-drive implosions on the Omega facility. Physics of Plasmas, 2016, 23, .	1.9	6
33	Polarization modification of a spatially randomized picosecond-pulse beam during its amplification by a nanosecond pump. Physics of Plasmas, 2017, 24, .	1.9	6
34	Analysis of a kinetic model for electron heat transport in inertial confinement fusion plasmas. Physics of Plasmas, 2022, 29, 062301.	1.9	6
35	Interpretation of proton radiography experiments of hohlraums with three-dimensional simulations. Physical Review E, 2019, 99, 053207.	2.1	5
36	Kinetic analytical modeling of Gaussian pulse beam-bending including the transient regime. Physics of Plasmas, 2020, 27, .	1.9	5

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37	Forward scattering and filamentation of a spatially smoothed laser pulse in the hydrodynamic and kinetic frameworks. <i>Physics of Plasmas</i> , 2021, 28, 052701.	1.9	5
38	Studies on laser beam propagation and stimulated scattering in multiple beam experiments. <i>European Physical Journal Special Topics</i> , 2006, 133, 29-33.	0.2	5
39	Fluid modeling of stimulated Raman scattering accounting for trapped particles benchmarked against fully kinetic simulations. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	5
40	Laser-plasma interaction physics in multi kilojoule experiments. <i>Journal of Physics: Conference Series</i> , 2010, 244, 022021.	0.4	4
41	Stimulated Raman backscattering from a laser wakefield accelerator. <i>New Journal of Physics</i> , 2018, 20, 073039.	2.9	4
42	Kinetic effects in stimulated Brillouin scattering. <i>European Physical Journal Special Topics</i> , 2006, 133, 339-342.	0.2	4
43	Inhibition of crossed-beam energy transfer induced by expansion-velocity fluctuations. <i>Plasma Physics and Controlled Fusion</i> , 2018, 60, 044006.	2.1	3
44	Enhancement and control of laser wakefields via a backward Raman amplifier. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	3
45	Laser plasma interaction physics on the LIL facility. <i>EPJ Web of Conferences</i> , 2013, 59, 05003.	0.3	2
46	Simulation of laser-plasma interaction experiments with gas-filled hohlraums on the LIL facility. <i>Journal of Physics: Conference Series</i> , 2016, 688, 012059.	0.4	2