Yasuhiro Kuramitsu

List of Publications by Year
in descending order

67 papers	1,276 citations	361413 20 h-index	395702 33 g-index
68 all docs	68 docs citations	68 times ranked	951 citing authors

#	Article	IF	Citations
1	Time Evolution of Collisionless Shock in Counterstreaming Laser-Produced Plasmas. Physical Review Letters, 2011, 106, 175002.	7.8	127
2	Self-organized electromagnetic field structures in laser-produced counter-streaming plasmas. Nature Physics, 2012, 8, 809-812.	16.7	118
3	Characterizing counter-streaming interpenetrating plasmas relevant to astrophysical collisionless shocks. Physics of Plasmas, 2012, 19, .	1.9	101
4	Turbulent amplification of magnetic fields in laboratory laser-produced shock waves. Nature Physics, 2014, 10, 520-524.	16.7	84
5	Developed turbulence and nonlinear amplification of magnetic fields in laboratory and astrophysical plasmas. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8211-8215.	7.1	52
6	Collisionless shock generation in high-speed counterstreaming plasma flows by a high-power laser. Physics of Plasmas, 2010, 17, .	1.9	50
7	Visualizing electromagnetic fields in laser-produced counter-streaming plasma experiments for collisionless shock laboratory astrophysics. Physics of Plasmas, 2013, 20, .	1.9	36
8	Kelvin-Helmholtz Turbulence Associated with Collisionless Shocks in Laser Produced Plasmas. Physical Review Letters, 2012, 108, 195004.	7.8	34
9	In-Target Protonâ€“Boron Nuclear Fusion Using a PW-Class Laser. Applied Sciences (Switzerland), 2022, 12, 1444.	2.5	31
10	Magnetohydrodynamics of laser-produced high-energy-density plasma in a strong external magnetic field. Physical Review E, 2017, 95, 053204.	2.1	29
11	Nonthermal Acceleration of Charged Particles due to an Incoherent Wakefield Induced by a Large-Amplitude Light Pulse. Astrophysical Journal, 2008, 682, L113-L116.	4.5	28
12	Recent progress of laboratory astrophysics with intense lasers. High Power Laser Science and Engineering, 2021, 9, .	4.6	27
13	Magnetic reconnection driven by electron dynamics. Nature Communications, 2018, 9, 5109.	12.8	26
14	Thomson scattering measurement of a shock in laser-produced counter-streaming plasmas. Physics of Plasmas, 2013, 20, .	1.9	25
15	Energetic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î±</mml:mi></mml:math> -particle sources produced through proton-boron reactions by high-energy high-intensity laser beams. Physical Review E, 2021, 103, 053202.	2.1	25
16	Supersonic plasma turbulence in the laboratory. Nature Communications, 2019, 10, 1758.	12.8	24
17	Model experiment of cosmic ray acceleration due to an incoherent wakefield induced by an intense laser pulse. Physics of Plasmas, 2011, 18, 010701.	1.9	23
18	Electron acceleration by wave turbulence in a magnetized plasma. Nature Physics, 2018, 14, 475-479.	16.7	22

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19	Generation of Î±-Particle Beams With a Multi-kJ, Peta-Watt Class Laser System. Frontiers in Physics, 2020, 8, .	2.1	22
20	JET FORMATION IN COUNTERSTREAMING COLLISIONLESS PLASMAS. Astrophysical Journal, 2009, 707, L137-L141.	4.5	21
21	Rayleigh-Taylor instability experiments on the LULI2000 laser in scaled conditions for young supernova remnants. Physical Review E, 2019, 100, 021201.	2.1	20
22	The scalability of the accretion column in magnetic cataclysmic variables: the POLAR project. Astrophysics and Space Science, 2011, 336, 81-85.	1.4	19
23	Astrophysical jet experiments. Plasma Physics and Controlled Fusion, 2008, 50, 124039.	2.1	18
24	Experimental evidence of nonthermal acceleration of relativistic electrons by an intensive laser pulse. Physical Review E, 2011, 83, 026401.	2.1	18
25	Laboratory investigations on the origins of cosmic rays. Plasma Physics and Controlled Fusion, 2012, 54, 124049.	2.1	18
26	Laser-driven plasma jets propagating in an ambient gas studied with optical and proton diagnostics. Physics of Plasmas, 2010, 17, 052708.	1.9	16
27	Highly radiative shock experiments driven by GEKKO XII. Astrophysics and Space Science, 2011, 336, 213-218.	1.4	14
28	Relativistic plasma astrophysics with intense lasers. High Energy Density Physics, 2015, 17, 198-202.	1.5	14
29	Spontaneous focusing of plasma flow in a weak perpendicular magnetic field. Physics of Plasmas, 2016, 23, .	1.9	12
30	Experimental results to study astrophysical plasma jets using Intense Lasers. Astrophysics and Space Science, 2009, 322, 25-29.	1.4	11
31	Formation of density inhomogeneity in laser produced plasmas forÂaÂtest bed of magnetic field amplification in supernova remnants. Astrophysics and Space Science, 2011, 336, 269-272.	1.4	11
32	Discriminative detection of laser-accelerated multi-MeV carbon ions utilizing solid state nuclear track detectors. Scientific Reports, 2021, 11, 16283.	3.3	11
33	Robustness of large-area suspended graphene under interaction with intense laser. Scientific Reports, 2022, 12, 2346.	3.3	11
34	Particle acceleration by elliptically and linearly polarized waves in the vicinity of quasi-parallel shocks. Journal of Geophysical Research, 2005, 110, .	3.3	10
35	Temperature measurements of electrostatic shocks inÂlaser-produced counter-streaming plasmas. Astrophysics and Space Science, 2011, 336, 283-286.	1.4	10
36	Collisionless electrostatic shock generation using high-energy laser systems. Advances in Physics: X, 2016, 1, 425-443.	4.1	10

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37	Interaction of a highly radiative shock with a solid obstacle. Physics of Plasmas, 2017, 24, .	1.9	9
38	Spectrum modulation of relativistic electrons by laser wakefield. Applied Physics Letters, 2008, 93, 081501.	3.3	8
39	On the universality of nonthermal electron acceleration due to quasi-turbulent wakefields. High Energy Density Physics, 2012, 8, 266-270.	1.5	8
40	Formation and propagation of laser-driven plasma jets in an ambient medium studied with X-ray radiography and optical diagnostics. Physics of Plasmas, 2015, 22, .	1.9	8
41	Large-area suspended graphene as a laser target to produce an energetic ion beam. High Power Laser Science and Engineering, 2017, 5, .	4.6	8
42	Full particle-in-cell simulation of the interaction between two plasmas for laboratory experiments on the generation of magnetized collisionless shocks with high-power lasers. Physics of Plasmas, 2019, 26, .	1.9	8
43	Collective Thomson scattering in non-equilibrium laser produced two-stream plasmas. Physics of Plasmas, 2020, 27, .	1.9	8
44	High-power laser experiment forming a supercritical collisionless shock in a magnetized uniform plasma at rest. Physical Review E, 2022, 105, 025203.	2.1	8
45	A jet production experiment using the high-repetition rate Astra laser. Astrophysics and Space Science, 2009, 322, 31-35.	1.4	7
46	Anomalous plasma acceleration in colliding high-power laser-produced plasmas. Physics of Plasmas, 2019, 26, 090702.	1.9	7
47	Laboratory study of stationary accretion shock relevant to astrophysical systems. Scientific Reports, 2019, 9, 8157.	3.3	7
48	Transition from coherent to incoherent acceleration of nonthermal relativistic electron induced by an intense light pulse. High Energy Density Physics, 2017, 22, 46-50.	1.5	6
49	Toward the Generation of Magnetized Collisionless Shocks with High-Power Lasers. Plasma and Fusion Research, 2016, 11, 3401031-3401031.	0.7	5
50	Characterization of electrostatic shock in laser-produced optically-thin plasma flows using optical diagnostics. Physics of Plasmas, 2017, 24, 072701.	1.9	5
51	Radiation pressure injection in laser-wakefield acceleration. Physics of Plasmas, 2018, 25, .	1.9	5
52	Recent Laboratory Astrophysics Experiments at LULI. Plasma and Fusion Research, 2009, 4, 044-044.	0.7	5
53	Direct observations of pure electron outflow in magnetic reconnection. Scientific Reports, 2022, 12, .	3.3	5
54	Collisionless Shock Wave Generation in Counter-Streaming Plasmas Using Gekko XII HIPER Laser. Plasma and Fusion Research, 2011, 6, 2404057-2404057.	0.7	4

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55	Generation of counter-streaming plasmas for collisionless shock experiment. High Energy Density Physics, 2017, 23, 207-211.	1.5	4
56	Collective scattering of an incident monochromatic circularly polarized wave in an unmagnetized non-equilibrium plasma. Journal of Physics: Conference Series, 2016, 688, 012062.	0.4	3
57	Collective Thomson scattering measurements of electron feature using stimulated Brillouin scattering in laser-produced plasmas. High Energy Density Physics, 2019, 32, 82-88.	1.5	3
58	Nonthermal relativistic electron acceleration due to laser-induced incoherent wakefields with external static magnetic fields. High Energy Density Physics, 2019, 31, 64-69.	1.5	3
59	Local plasma parameter measurements in colliding laser-produced plasmas for studying magnetic reconnection. High Energy Density Physics, 2020, 36, 100754.	1.5	3
60	Efficient hybrid acceleration scheme for generating 100 MeV protons with tabletop dual-laser pulses. Physics of Plasmas, 2021, 28, .	1.9	3
61	A multi-stage scintillation counter for GeV-scale multi-species ion spectroscopy in laser-driven particle acceleration experiments. Review of Scientific Instruments, 2022, 93, .	1.3	3
62	Exploring the mechanical properties of nanometer-thick elastic films through micro-drop impinging on large-area suspended graphene. Nanoscale, 2021, 14, 42-48.	5.6	2
63	Laboratory Study on Disconnection Events in Comets. Scientific Reports, 2018, 8, 463.	3.3	1
64	2-D-Particle-in-Cell Simulation of Laser Wakefield in an Inhomogeneous Plasma. IEEE Transactions on Plasma Science, 2019, 47, 9-11.	1.3	1
65	Laboratory Astrophysics Experiment Using High-Power Lasers. The Review of Laser Engineering, 2011, 39, 5-11.	0.0	0
66	Toward experimental observations of induced Compton scattering by high-power laser facilities. Progress of Theoretical and Experimental Physics, 2020, 2020, .	6.6	0
67	Laboratory Astrophysics with Lasers: Turbulent Electromagnetic Field Associated ã€€with Collisionless Shocks. The Review of Laser Engineering, 2013, 41, 20.	0.0	0