Kyle Peterson

List of Publications by Year
in descending order

41 papers	3,066 citations	236925 25 h-index	289244 40 g-index
41 all docs	41 docs citations	41 times ranked	1287 citing authors

#	Article	IF	Citations
1	Point design targets, specifications, and requirements for the 2010 ignition campaign on the National Ignition Facility. Physics of Plasmas, 2011, 18, .	1.9	534
2	Pulsed-power-driven cylindrical liner implosions of laser preheated fuel magnetized with an axial field. Physics of Plasmas, 2010, 17, .	1.9	486
3	Experimental Demonstration of Fusion-Relevant Conditions in Magnetized Liner Inertial Fusion. Physical Review Letters, 2014, 113, 155003.	7.8	332
4	Magnetically Driven Implosions for Inertial Confinement Fusion at Sandia National Laboratories. IEEE Transactions on Plasma Science, 2012, 40, 3222-3245.	1.3	154
5	Review of pulsed power-driven high energy density physics research on Z at Sandia. Physics of Plasmas, 2020, 27, .	1.9	140
6	Measurements of Magneto-Rayleigh-Taylor Instability Growth during the Implosion of Initially Solid Al Tubes Driven by the 20-MA, 100-ns Z Facility. Physical Review Letters, 2010, 105, 185001.	7.8	132
7	Design of magnetized liner inertial fusion experiments using the Z facility. Physics of Plasmas, 2014, 21, .	1.9	123
8	Understanding Fuel Magnetization and Mix Using Secondary Nuclear Reactions in Magneto-Inertial Fusion. Physical Review Letters, 2014, 113, 155004.	7.8	105
9	Measurements of magneto-Rayleighâ€“Taylor instability growth during the implosion of initially solid metal liners. Physics of Plasmas, 2011, 18, .	1.9	104
10	Penetrating Radiography of Imploding and Stagnating Beryllium Liners on the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Z</mml:mi></mml:math>Accelerator. Physical Review Letters, 2012, 109, 135004.	7.8	102
11	Experimental Demonstration of the Stabilizing Effect of Dielectric Coatings on Magnetically Accelerated Imploding Metallic Liners. Physical Review Letters, 2016, 116, 065001.	7.8	78
12	Physics of Plasmas, 2015, 22, 056306.	1.9	75
13	Scaling magnetized liner inertial fusion on Z and future pulsed-power accelerators. Physics of Plasmas, 2016, 23, .	1.9	65
14	Performance Scaling in Magnetized Liner Inertial Fusion Experiments. Physical Review Letters, 2020, 125, 155002.	7.8	65
15	Laser-driven magnetized liner inertial fusion. Physics of Plasmas, 2017, 24, .	1.9	49
16	Effects of magnetization on fusion product trapping and secondary neutron spectra. Physics of Plasmas, 2015, 22, .	1.9	37
17	Origins and effects of mix on magnetized liner inertial fusion target performance. Physics of Plasmas, 2019, 26, .	1.9	37
18		1.9	36

#	Article	IF	Citations
19	An overview of magneto-inertial fusion on the Z machine at Sandia National Laboratories. Nuclear Fusion, 2022, 62, 042015.	3.5	35
20	Enhancing performance of magnetized liner inertial fusion at the Z facility. Physics of Plasmas, 2018, 25, .	1.9	34
21	Laser-driven magnetized liner inertial fusion on OMEGA. Physics of Plasmas, 2017, 24, .	1.9	33
22	Diagnosing and mitigating laser preheat induced mix in MagLIF. Physics of Plasmas, 2018, 25, .	1.9	33
23	Minimizing scatter-losses during pre-heat for magneto-inertial fusion targets. Physics of Plasmas, 2018, 25, .	1.9	30
24	Constraining preheat energy deposition in MagLIF experiments with multi-frame shadowgraphy. Physics of Plasmas, 2019, 26, .	1.9	27
25	Direct measurement of the inertial confinement time in a magnetically driven implosion. Physics of Plasmas, 2017, 24, .	1.9	26
26	Fill-Tube-Induced Mass Perturbations on X-Ray-Driven, Ignition-Scale, Inertial-Confinement-Fusion Capsule Shells and the Implications for Ignition Experiments. Physical Review Letters, 2007, 99, 205003.	7.8	25
27	Exploring magnetized liner inertial fusion with a semi-analytic model. Physics of Plasmas, 2016, 23, .	1.9	22
28	Current transport and loss mechanisms in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Z</mml:mi></mml:math> accelerator. Physical Review Accelerators and Beams, 2019, 22, .	1.6	22
29	Effect of axial magnetic flux compression on the magnetic Rayleigh-Taylor instability (theory). AIP Conference Proceedings, 2014, , .	0.4	17
30	Use of hydrodynamic theory to estimate electrical current redistribution in metals. Physics of Plasmas, 2020, 27, 052703.	1.9	16
31	Fusion-neutron measurements for magnetized liner inertial fusion experiments on the Z accelerator. Journal of Physics: Conference Series, 2016, 717, 012020.	0.4	15
32	Laser propagation measurements in long-scale-length underdense plasmas relevant to magnetized liner inertial fusion. Physical Review E, 2016, 94, 051201.	2.1	14
33	Magnetic field impact on the laser heating in MagLIF. Physics of Plasmas, 2020, 27, .	1.9	12
34	Estimation of stagnation performance metrics in magnetized liner inertial fusion experiments using Bayesian data assimilation. Physics of Plasmas, 2022, 29, .	1.9	11
35	Design and testing of a magnetically driven implosion peak current diagnostic. Physics of Plasmas, 2018, 25, 042702.	1.9	8
36	The effect of laser entrance hole foil thickness on MagLIF-relevant laser preheat. Physics of Plasmas, 2020, 27, .	1.9	8

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37	Temperature distributions and gradients in laser-heated plasmas relevant to magnetized liner inertial fusion. Physical Review E, 2020, 102, 023209.	2.1	8
38	A novel, magnetically driven convergent Richtmyerâ€“Meshkov platform. Physics of Plasmas, 2020, 27, .	1.9	7
39	Detection of an anomalous pressure on a magneto-inertial-fusion load current diagnostic. Physics of Plasmas, 2017, 24, 013119.	1.9	5
40	An efficient method for unfolding kinetic pressure driven VISAR data. High Power Laser Science and Engineering, 2015, 3, .	4.6	4
41	Increased preheat energy to MagLIF targets with cryogenic cooling. , 2021, , .		0