

Matthew R Weis

List of Publications by Year in descending order

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Version: 2024-02-01

29
papers

784
citations

516710

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526287

27
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31
all docs

31
docs citations

31
times ranked

467
citing authors

#	ARTICLE	IF	CITATIONS
1	An overview of magneto-inertial fusion on the Z machine at Sandia National Laboratories. Nuclear Fusion, 2022, 62, 042015.	3.5	35
2	Estimation of stagnation performance metrics in magnetized liner inertial fusion experiments using Bayesian data assimilation. Physics of Plasmas, 2022, 29, .	1.9	11
3	Scaling laser preheat for MagLIF with the Z-Beamlet laser. Physics of Plasmas, 2021, 28, .	1.9	15
4	Measuring mix in MagLIF experiments at the NIF*. , 2021, , .		0
5	Increased preheat energy to MagLIF targets with cryogenic cooling. , 2021, , .		0
6	Lasergate: A windowless gas target for enhanced laser preheat in magnetized liner inertial fusion. Physics of Plasmas, 2021, 28, 112703.	1.9	1
7	Magnetic field effects on laser energy deposition and filamentation in magneto-inertial fusion relevant plasmas. Physics of Plasmas, 2021, 28, .	1.9	3
8	Performance Scaling in Magnetized Liner Inertial Fusion Experiments. Physical Review Letters, 2020, 125, 155002.	7.8	65
9	Review of pulsed power-driven high energy density physics research on Z at Sandia. Physics of Plasmas, 2020, 27, .	1.9	140
10	The effect of laser entrance hole foil thickness on MagLIF-relevant laser preheat. Physics of Plasmas, 2020, 27, .	1.9	8
11	Temperature distributions and gradients in laser-heated plasmas relevant to magnetized liner inertial fusion. Physical Review E, 2020, 102, 023209.	2.1	8
12	Initial surface conditions affecting the formation of plasma on metal conductors driven by a mega-ampere current pulse. Physics of Plasmas, 2020, 27, .	1.9	4
13	Magnetic field impact on the laser heating in MagLIF. Physics of Plasmas, 2020, 27, .	1.9	12
14	Quantification of MagLIF morphology using the Mallat scattering transformation. Physics of Plasmas, 2020, 27, .	1.9	9
15	Constraining preheat energy deposition in MagLIF experiments with multi-frame shadowgraphy. Physics of Plasmas, 2019, 26, .	1.9	27
16	Assessing Stagnation Conditions and Identifying Trends in Magnetized Liner Inertial Fusion. IEEE Transactions on Plasma Science, 2019, 47, 2081-2101.	1.3	36
17	Origins and effects of mix on magnetized liner inertial fusion target performance. Physics of Plasmas, 2019, 26, .	1.9	37
18	Minimizing scatter-losses during pre-heat for magneto-inertial fusion targets. Physics of Plasmas, 2018, 25, .	1.9	30

#	ARTICLE	IF	CITATIONS
19	Diagnosing and mitigating laser preheat induced mix in MagLIF. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	33
20	Enhancing performance of magnetized liner inertial fusion at the Z facility. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	34
21	The staged z-pinch as a potential high gain fusion energy source: An independent review, a negative conclusion. <i>Physics of Plasmas</i> , 2018, 25, 102707.	1.9	11
22	Laser-driven magnetized liner inertial fusion on OMEGA. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	33
23	Direct measurement of the inertial confinement time in a magnetically driven implosion. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	26
24	Laser-driven magnetized liner inertial fusion. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	49
25	A 7.2 keV spherical x-ray crystal backlighter for two-frame, two-color backlighting at Sandia's Z Pulsed Power Facility. <i>Review of Scientific Instruments</i> , 2017, 88, 103503.	1.3	12
26	Coupling of sausage, kink, and magneto-Rayleigh-Taylor instabilities in a cylindrical liner. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	40
27	Temporal evolution of surface ripples on a finite plasma slab subject to the magneto-Rayleigh-Taylor instability. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	19
28	Effects of magnetic shear on magneto-Rayleigh-Taylor instability. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	33
29	Anisotropy and feedthrough in magneto-Rayleigh-Taylor instability. <i>Physical Review E</i> , 2011, 83, 066405.	2.1	53