

Owen Mannion

List of Publications by Year in descending order

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Version: 2024-02-01

26
papers

401
citations

840776

11
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752698

20
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26
all docs

26
docs citations

26
times ranked

366
citing authors

#	ARTICLE	IF	CITATIONS
1	Tripled yield in direct-drive laser fusion through statistical modelling. <i>Nature</i> , 2019, 565, 581-586.	27.8	103
2	Effects of residual kinetic energy on yield degradation and ion temperature asymmetries in inertial confinement fusion implosions. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	33
3	Mitigation of mode-one asymmetry in laser-direct-drive inertial confinement fusion implosions. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	26
4	Experimentally Inferred Fusion Yield Dependencies of OMEGA Inertial Confinement Fusion Implosions. <i>Physical Review Letters</i> , 2021, 127, 105001.	7.8	23
5	Impact of three-dimensional hot-spot flow asymmetry on ion-temperature measurements in inertial confinement fusion experiments. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	22
6	Calibration of a neutron time-of-flight detector with a rapid instrument response function for measurements of bulk fluid motion on OMEGA. <i>Review of Scientific Instruments</i> , 2018, 89, 101131.	1.3	21
7	Theory of ignition and burn propagation in inertial fusion implosions. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	21
8	Analysis of trends in experimental observables: Reconstruction of the implosion dynamics and implications for fusion yield extrapolation for direct-drive cryogenic targets on OMEGA. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	18
9	Inferring thermal ion temperature and residual kinetic energy from nuclear measurements in inertial confinement fusion implosions. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	15
10	Impact of stalk on directly driven inertial confinement fusion implosions. <i>Physics of Plasmas</i> , 2020, 27, 032704.	1.9	15
11	Neutron backscatter edge: A measure of the hydrodynamic properties of the dense DT fuel at stagnation in ICF experiments. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	13
12	Reconstructing 3D asymmetries in laser-direct-drive implosions on OMEGA. <i>Review of Scientific Instruments</i> , 2021, 92, 033529.	1.3	11
13	An x-ray penumbral imager for measurements of electron temperature profiles in inertial confinement fusion implosions at OMEGA. <i>Review of Scientific Instruments</i> , 2021, 92, 043548.	1.3	10
14	Deuteron breakup induced by 14-MeV neutrons from inertial confinement fusion. <i>Physical Review C</i> , 2019, 100, .	2.9	9
15	Thermal decoupling of deuterium and tritium during the inertial confinement fusion shock-convergence phase. <i>Physical Review E</i> , 2021, 104, L013201.	2.1	9
16	Enhanced laser-energy coupling with small-spot distributed phase plates (SG5-650) in OMEGA DT cryogenic target implosions. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	9
17	The effect of areal density asymmetries on scattered neutron spectra in ICF implosions. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	8
18	Effect of cross-beam energy transfer on target-offset asymmetry in direct-drive inertial confinement fusion implosions. <i>Physics of Plasmas</i> , 2020, 27, 112713.	1.9	6

#	ARTICLE	IF	CITATIONS
19	A generalized forward fit for neutron detectors with energy-dependent response functions. Journal of Applied Physics, 2020, 128, .	2.5	6
20	Measurements of the temperature and velocity of the dense fuel layer in inertial confinement fusion experiments. Physical Review E, 2022, 105, .	2.1	5
21	A novel photomultiplier tube neutron time-of-flight detector. Review of Scientific Instruments, 2021, 92, 013509.	1.3	4
22	Application of an energy-dependent instrument response function to analysis of nTOF data from cryogenic DT experiments. Review of Scientific Instruments, 2021, 92, 043546.	1.3	4
23	Using statistical modeling to predict and understand fusion experiments. Physics of Plasmas, 2021, 28, .	1.9	4
24	A second order yield-temperature relation for accurate inference of burn-averaged quantities in multi-species plasmas. Physics of Plasmas, 2021, 28, 022701.	1.9	3
25	Neutron backscatter edges as a diagnostic of burn propagation. Physics of Plasmas, 2022, 29, 062707.	1.9	2
26	Analysis of limited coverage effects on areal density measurements in inertial confinement fusion implosions. Physics of Plasmas, 2022, 29, .	1.9	1