

Christopher R Weber

List of Publications by Year in descending order

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Version: 2024-02-01

53
papers

2,637
citations

159585

30
h-index

182427

51
g-index

53
all docs

53
docs citations

53
times ranked

923
citing authors

#	ARTICLE	IF	CITATIONS
1	Burning plasma achieved in inertial fusion. <i>Nature</i> , 2022, 601, 542-548.	27.8	233
2	Fusion Energy Output Greater than the Kinetic Energy of an Imploding Shell at the National Ignition Facility. <i>Physical Review Letters</i> , 2018, 120, 245003.	7.8	205
3	Three-dimensional simulations of low foot and high foot implosion experiments on the National Ignition Facility. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	162
4	Radiation hydrodynamics modeling of the highest compression inertial confinement fusion ignition experiment from the National Ignition Campaign. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	120
5	Symmetry control of an indirectly driven high-density-carbon implosion at high convergence and high velocity. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	106
6	Inhibition of turbulence in inertial-confinement-fusion hot spots by viscous dissipation. <i>Physical Review E</i> , 2014, 89, 053106.	2.1	97
7	The high velocity, high adiabat, "Bigfoot" campaign and tests of indirect-drive implosion scaling. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	90
8	Design of inertial fusion implosions reaching the burning plasma regime. <i>Nature Physics</i> , 2022, 18, 251-258.	16.7	87
9	Record Energetics for an Inertial Fusion Implosion at NIF. <i>Physical Review Letters</i> , 2021, 126, 025001.	7.8	76
10	Three-dimensional modeling and hydrodynamic scaling of National Ignition Facility implosions. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	70
11	Indirect drive ignition at the National Ignition Facility. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 014021.	2.1	64
12	Capsule physics comparison of National Ignition Facility implosion designs using plastic, high density carbon, and beryllium ablaters. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	62
13	Improved Performance of High Areal Density Indirect Drive Implosions at the National Ignition Facility using a Four-Shock Adiabatic Shaped Drive. <i>Physical Review Letters</i> , 2015, 115, 105001.	7.8	58
14	Impact of Localized Radiative Loss on Inertial Confinement Fusion Implosions. <i>Physical Review Letters</i> , 2020, 124, 145001.	7.8	58
15	Achieving record hot spot energies with large HDC implosions on NIF in HYBRID-E. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	55
16	Improving ICF implosion performance with alternative capsule supports. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	54
17	Toward a burning plasma state using diamond ablator inertially confined fusion (ICF) implosions on the National Ignition Facility (NIF). <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 014023.	2.1	53
18	A survey of pulse shape options for a revised plastic ablator ignition design. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	50

#	ARTICLE	IF	CITATIONS
19	Hotspot conditions achieved in inertial confinement fusion experiments on the National Ignition Facility. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	50
20	Hydrodynamic instability growth of three-dimensional, "native-roughness" modulations in x-ray driven, spherical implosions at the National Ignition Facility. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	46
21	X-ray shadow imprint of hydrodynamic instabilities on the surface of inertial confinement fusion capsules by the fuel fill tube. <i>Physical Review E</i> , 2017, 95, 031204.	2.1	46
22	Hot-spot mix in large-scale HDC implosions at NIF. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	46
23	Three-dimensional hydrodynamics of the deceleration stage in inertial confinement fusion. <i>Physics of Plasmas</i> , 2015, 22, 032702.	1.9	45
24	Increasing stagnation pressure and thermonuclear performance of inertial confinement fusion capsules by the introduction of a high-Z dopant. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	42
25	Mixing in ICF implosions on the National Ignition Facility caused by the fill-tube. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	41
26	Capsule modeling of high foot implosion experiments on the National Ignition Facility. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 055006.	2.1	40
27	Evidence of Three-Dimensional Asymmetries Seeded by High-Density Carbon-Ablator Nonuniformity in Experiments at the National Ignition Facility. <i>Physical Review Letters</i> , 2021, 126, 025002.	7.8	40
28	Performance of indirectly driven capsule implosions on the National Ignition Facility using adiabat-shaping. <i>Physics of Plasmas</i> , 2016, 23, 056303.	1.9	38
29	First Measurements of Fuel-Ablator Interface Instability Growth in Inertial Confinement Fusion Implosions on the National Ignition Facility. <i>Physical Review Letters</i> , 2016, 117, 075002.	7.8	33
30	Adiabat-shaping in indirect drive inertial confinement fusion. <i>Physics of Plasmas</i> , 2015, 22, 052702.	1.9	31
31	Review of hydrodynamic instability experiments in inertially confined fusion implosions on National Ignition Facility. <i>Plasma Physics and Controlled Fusion</i> , 2020, 62, 014007.	2.1	31
32	Hydrodynamic instability growth of three-dimensional modulations in radiation-driven implosions with "low-foot" and "high-foot" drives at the National Ignition Facility. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	30
33	Mitigation of X-ray shadow seeding of hydrodynamic instabilities on inertial confinement fusion capsules using a reduced diameter fuel fill-tube. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	30
34	Simulations and experiments of the growth of the "tent" perturbation in NIF ignition implosions. <i>Journal of Physics: Conference Series</i> , 2016, 717, 012021.	0.4	28
35	Symmetric fielding of the largest diamond capsule implosions on the NIF. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	28
36	Experimental results of radiation-driven, layered deuterium-tritium implosions with adiabat-shaped drives at the National Ignition Facility. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	27

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37	Hydro-instability growth of perturbation seeds from alternate capsule-support strategies in indirect-drive implosions on National Ignition Facility. <i>Physics of Plasmas</i> , 2017, 24, 102707.	1.9	27
38	Hydrodynamic instabilities seeded by the X-ray shadow of ICF capsule fill-tubes. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	25
39	Hotspot parameter scaling with velocity and yield for high-adiabat layered implosions at the National Ignition Facility. <i>Physical Review E</i> , 2020, 102, 023210.	2.1	25
40	Design of indirectly driven, high-compression Inertial Confinement Fusion implosions with improved hydrodynamic stability using a 4-shock adiabat-shaped drive. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	22
41	Integrated performance of large HDC-capsule implosions on the National Ignition Facility. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	22
42	Mitigating the impact of hohlraum asymmetries in National Ignition Facility implosions using capsule shims. <i>Physics of Plasmas</i> , 2016, 23, 072707.	1.9	20
43	Achieving 280 Gbar hot spot pressure in DT-layered CH capsule implosions at the National Ignition Facility. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	20
44	Simulations of fill tube effects on the implosion of high-foot NIF ignition capsules. <i>Journal of Physics: Conference Series</i> , 2016, 717, 012013.	0.4	17
45	A "polar contact" for reduced perturbation and improved performance of NIF ignition capsules. <i>Physics of Plasmas</i> , 2018, 25, 082714.	1.9	17
46	Cross-code comparison of the impact of the fill tube on high yield implosions on the National Ignition Facility. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	16
47	Exploring implosion designs for increased compression on the National Ignition Facility using high density carbon ablaters. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	15
48	Single-mode perturbation growth in an idealized spherical implosion. <i>Journal of Computational Physics</i> , 2018, 371, 801-819.	3.8	14
49	Fill tube dynamics in inertial confinement fusion implosions with high density carbon ablaters. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	11
50	Measurements of enhanced performance in an indirect drive inertial confinement fusion experiment when reducing the contact area of the capsule support. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	7
51	Hydroscaling indirect-drive implosions on the National Ignition Facility. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	4
52	Progress in detailed modelling of low foot and high foot implosion experiments on the National Ignition Facility. <i>Journal of Physics: Conference Series</i> , 2016, 717, 012011.	0.4	2
53	Measurement of hydrodynamic instability growth during the deceleration of an inertial confinement fusion implosion. <i>High Energy Density Physics</i> , 2020, 37, 100817.	1.5	1