Steven Batha

List of Publications by Year
in descending order

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29	605	567281	580821
papers	citations	15 h-index	25 g-index

36	36	36	560
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Exploring the limits of case-to-capsule ratio, pulse length, and picket energy for symmetric hohlraum drive on the National Ignition Facility Laser. Physics of Plasmas, 2018, 25, .	1.9	79
2	First Liquid Layer Inertial Confinement Fusion Implosions at the National Ignition Facility. Physical Review Letters, 2016, 117, 245001.	7.8	53
3	The National Ignition Facility Neutron Imaging System. Review of Scientific Instruments, 2008, 79, 10E529.	1.3	51
4	Observation of mix in a compressible plasma in a convergent cylindrical geometry. Physics of Plasmas, 2002, 9, 4431-4434.	1.9	47
5	Demonstration of Scale-Invariant Rayleigh-Taylor Instability Growth in Laser-Driven Cylindrical Implosion Experiments. Physical Review Letters, 2020, 124, 185003.	7.8	42
6	Postponement of Saturation of the Richtmyer-Meshkov Instability in a Convergent Geometry. Physical Review Letters, 2004, 93, 115003.	7.8	34
7	Experimental study of energy transfer in double shell implosions. Physics of Plasmas, 2019, 26, .	1.9	32
8	The National Ignition Facility Diagnostic Set at the Completion of the National Ignition Campaign, September 2012. Fusion Science and Technology, 2016, 69, 420-451.	1.1	29
9	Scaling laws for ignition at the National Ignition Facility from first principles. Physical Review E, 2013, 88, 041101.	2.1	28
10	Effects of preheat and mix on the fuel adiabat of an imploding capsule. Physics of Plasmas, 2016, 23, .	1.9	21
11	Analysis of NIF experiments with the minimal energy implosion model. Physics of Plasmas, 2015, 22, .	1.9	20
12	Modeling of direct-drive cylindrical implosion experiments with an Eulerian radiation-hydrodynamics code. Physics of Plasmas, 2019, 26, 042701.	1.9	18
13	Ignition and pusher adiabat. Plasma Physics and Controlled Fusion, 2018, 60, 074011.	2.1	16
14	Cross-code comparison of the impact of the fill tube on high yield implosions on the National Ignition Facility. Physics of Plasmas, 2020, 27, .	1.9	16
15	Variable convergence liquid layer implosions on the National Ignition Facility. Physics of Plasmas, 2018, 25, .	1.9	15
16	Density determination of the thermonuclear fuel region in inertial confinement fusion implosions. Journal of Applied Physics, 2020, 127, .	2.5	15
17	Hydro-scaling of direct-drive cylindrical implosions at the OMEGA and the National Ignition Facility. Physics of Plasmas, 2020, 27, 042708.	1.9	15
18	Observations of multimode perturbation decay at non-accelerating, soft x-ray driven ablation fronts. Physics of Plasmas, 2012, 19, .	1.9	12

#	Article	IF	Citations
19	Detrimental effects and mitigation of the joint feature in double shell implosion simulations. Physics of Plasmas, 2021, 28, .	1.9	12
20	Validation of the radiation hydrocodeRAGEagainst defect-driven mix experiments in a compressible, convergent, and miscible plasma system. Physics of Plasmas, 2006, 13, 042703.	1.9	11
21	Three-dimensional reconstruction of neutron, gamma-ray, and x-ray sources using a cylindrical-harmonics expansion. Review of Scientific Instruments, 2021, 92, 033508.	1.3	11
22	Production of enhanced pressure regions due to inhomogeneities in inertial confinement fusion targets. Physics of Plasmas, 2000, 7, 2007-2013.	1.9	8
23	Optimizing neutron imaging line of sight locations for maximizing sampling of the cold fuel density in inertial confinement fusion implosions at the National Ignition Facility. Review of Scientific Instruments, 2018, 89, 101147.	1.3	6
24	First measurement of the 10B(Î±,n)13N reaction in an inertial confinement fusion implosion at the National Ignition Facility: Initial steps toward the development of a radiochemistry mix diagnostic. Physics of Plasmas, 2022, 29, .	1.9	6
25	High-yield and high-angular-fluence neutron generation from deuterons accelerated by laser-driven collisionless shock. Applied Physics Letters, 2022, 120, 024102.	3.3	5
26	Use of 41Ar production to measure ablator areal density in NIF beryllium implosions. Physics of Plasmas, 2017, 24, .	1.9	2
27	Preface to the Proceedings of the 23rd Topical Conference on High-Temperature Plasma Diagnostics. Review of Scientific Instruments, 2021, 92, 081601.	1.3	0
28	Mitigating the Joint Feature in Double Shell Implosion Simulations *. , 2021, , .		0
29	High-Yield and High-Angular-Fluence Neutron Generation from Deuterons Accelerated by Laser-Driven Collisionless Shock. , 2022, , .		0