# Christopher R Weber

List of Publications by Year
in descending order



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|---|---|---|---|
| 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 | Design of inertial fusion implosions reaching the burning plasma regime. Nature Physics, 2022, 18, 251-258. | 16.7 | 87 |
| 2 | Burning plasma achieved in inertial fusion. Nature, 2022, 601, 542-548. | 27.8 | 233 |
| 3 | Exploring implosion designs for increased compression on the National Ignition Facility using high density carbon ablators. Physics of Plasmas, 2022, 29, . | 1.9 | 15 |
| 4 | Hydroscaling indirect-drive implosions on the National Ignition Facility. Physics of Plasmas, 2022, 29, . | 1.9 | 4 |
| 5 | Achieving record hot spot energies with large HDC implosions on NIF in HYBRID-E. Physics of Plasmas, 2021, 28, . | 1.9 | 55 |
| 6 | Evidence of Three-Dimensional Asymmetries Seeded by High-Density Carbon-Ablator Nonuniformity in Experiments at the National Ignition Facility. Physical Review Letters, 2021, 126, 025002. | 7.8 | 40 |
| 7 | Record Energetics for an Inertial Fusion Implosion at NIF. Physical Review Letters, 2021, 126, 025001. | 7.8 | 76 |
| 8 | Review of hydrodynamic instability experiments in inertially confined fusion implosions on National Ignition Facility. Plasma Physics and Controlled Fusion, 2020, 62, 014007. | 2.1 | 31 |
| 9 | Integrated performance of large HDC-capsule implosions on the National Ignition Facility. Physics of Plasmas, 2020, 27, . | 1.9 | 22 |
| 10 | Hot-spot mix in large-scale HDC implosions at NIF. Physics of Plasmas, 2020, 27, . | 1.9 | 46 |
| 11 | Fill tube dynamics in inertial confinement fusion implosions with high density carbon ablators. Physics of Plasmas, 2020, 27, . | 1.9 | 11 |
| 12 | Measurements of enhanced performance in an indirect drive inertial confinement fusion experiment when reducing the contact area of the capsule support. Physics of Plasmas, 2020, 27, . | 1.9 | 7 |
| 13 | Hotspot parameter scaling with velocity and yield for high-adiabat layered implosions at the National Ignition Facility. Physical Review E, 2020, 102, 023210. | 2.1 | 25 |
| 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 | Measurement of hydrodynamic instability growth during the deceleration of an inertial confinement fusion implosion. High Energy Density Physics, 2020, 37, 100817. | 1.5 | 1 |
| 16 | Symmetric fielding of the largest diamond capsule implosions on the NIF. Physics of Plasmas, 2020, 27, . | 1.9 | 28 |
| 17 | Hotspot conditions achieved in inertial confinement fusion experiments on the National Ignition Facility. Physics of Plasmas, 2020, 27, . | 1.9 | 50 |
| 18 | Mixing in ICF implosions on the National Ignition Facility caused by the fill-tube. Physics of Plasmas, 2020, 27, . | 1.9 | 41 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Achieving 280 Gbar hot spot pressure in DT-layered CH capsule implosions at the National Ignition Facility. Physics of Plasmas, 2020, 27, . | 1.9 | 20 |
| 20 | Impact of Localized Radiative Loss on Inertial Confinement Fusion Implosions. Physical Review Letters, 2020, 124, 145001. | 7.8 | 58 |
| 21 | Toward a burning plasma state using diamond ablator inertially confined fusion (ICF) implosions on the National Ignition Facility (NIF). Plasma Physics and Controlled Fusion, 2019, 61, 014023. | 2.1 | 53 |
| 22 | Three-dimensional modeling and hydrodynamic scaling of National Ignition Facility implosions. Physics of Plasmas, 2019, 26, . | 1.9 | 70 |
| 23 | The high velocity, high adiabat, â€œBigfootâ€•campaign and tests of indirect-drive implosion scaling. Physics of Plasmas, 2018, 25, . | 1.9 | 90 |
| 24 | Capsule physics comparison of National Ignition Facility implosion designs using plastic, high density carbon, and beryllium ablators. Physics of Plasmas, 2018, 25, . | 1.9 | 62 |
| 25 | A â€œpolar contactâ€•tent for reduced perturbation and improved performance of NIF ignition capsules. Physics of Plasmas, 2018, 25, 082714. | 1.9 | 17 |
| 26 | Single-mode perturbation growth in an idealized spherical implosion. Journal of Computational Physics, 2018, 371, 801-819. | 3.8 | 14 |
| 27 | Mitigation of X-ray shadow seeding of hydrodynamic instabilities on inertial confinement fusion capsules using a reduced diameter fuel fill-tube. Physics of Plasmas, 2018, 25, . | 1.9 | 30 |
| 28 | Hydrodynamic instabilities seeded by the X-ray shadow of ICF capsule fill-tubes. Physics of Plasmas, 2018, 25, . | 1.9 | 25 |
| 29 | Increasing stagnation pressure and thermonuclear performance of inertial confinement fusion capsules by the introduction of a high-Z dopant. Physics of Plasmas, 2018, 25, . | 1.9 | 42 |
| 30 | Fusion Energy Output Greater than the Kinetic Energy of an Imploding Shell at the National Ignition Facility. Physical Review Letters, 2018, 120, 245003. | 7.8 | 205 |
| 31 | Improving ICF implosion performance with alternative capsule supports. Physics of Plasmas, 2017, 24, . | 1.9 | 54 |
| 32 | Hydrodynamic instability growth of three-dimensional modulations in radiation-driven implosions with â€œlow-footâ€•and â€œhigh-footâ€•drives at the National Ignition Facility. Physics of Plasmas, 2017, 24, . | 1.9 | 30 |
| 33 | Symmetry control of an indirectly driven high-density-carbon implosion at high convergence and high velocity. Physics of Plasmas, 2017, 24, . | 1.9 | 106 |
| 34 | Hydro-instability growth of perturbation seeds from alternate capsule-support strategies in indirect-drive implosions on National Ignition Facility. Physics of Plasmas, 2017, 24, 102707. | 1.9 | 27 |
| 35 | X-ray shadow imprint of hydrodynamic instabilities on the surface of inertial confinement fusion capsules by the fuel fill tube. Physical Review E, 2017, 95, 031204. | 2.1 | 46 |
| 36 | Indirect drive ignition at the National Ignition Facility. Plasma Physics and Controlled Fusion, 2017, 59, 014021. | 2.1 | 64 |

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|---|---|---|---|
| 37 | Capsule modeling of high foot implosion experiments on the National Ignition Facility. Plasma Physics and Controlled Fusion, 2017, 59, 055006. | 2.1 | 40 |
| 38 | Simulations of fill tube effects on the implosion of high-foot NIF ignition capsules. Journal of Physics: Conference Series, 2016, 717, 012013. | 0.4 | 17 |
| 39 | Progress in detailed modelling of low foot and high foot implosion experiments on the National Ignition Facility. Journal of Physics: Conference Series, 2016, 717, 012011. | 0.4 | 2 |
| 40 | Mitigating the impact of hohlraum asymmetries in National Ignition Facility implosions using capsule shims. Physics of Plasmas, 2016, 23, 072707. | 1.9 | 20 |
| 41 | Three-dimensional simulations of low foot and high foot implosion experiments on the National Ignition Facility. Physics of Plasmas, 2016, 23, . | 1.9 | 162 |
| 42 | Performance of indirectly driven capsule implosions on the National Ignition Facility using adiabat-shaping. Physics of Plasmas, 2016, 23, 056303. | 1.9 | 38 |
| 43 | Experimental results of radiation-driven, layered deuterium-tritium implosions with adiabat-shaped drives at the National Ignition Facility. Physics of Plasmas, 2016, 23, . | 1.9 | 27 |
| 44 | First Measurements of Fuel-Ablator Interface Instability Growth in Inertial Confinement Fusion Implosions on the National Ignition Facility. Physical Review Letters, 2016, 117, 075002. | 7.8 | 33 |
| 45 | Simulations and experiments of the growth of the â€œtentâ€•perturbation in NIF ignition implosions. Journal of Physics: Conference Series, 2016, 717, 012021. | 0.4 | 28 |
| 46 | Improved Performance of High Areal Density Indirect Drive Implosions at the National Ignition Facility using a Four-Shock Adiabat Shaped Drive. Physical Review Letters, 2015, 115, 105001. | 7.8 | 58 |
| 47 | Design of indirectly driven, high-compression Inertial Confinement Fusion implosions with improved hydrodynamic stability using a 4-shock adiabat-shaped drive. Physics of Plasmas, 2015, 22, . | 1.9 | 22 |
| 48 | Radiation hydrodynamics modeling of the highest compression inertial confinement fusion ignition experiment from the National Ignition Campaign. Physics of Plasmas, 2015, 22, . | 1.9 | 120 |
| 49 | Three-dimensional hydrodynamics of the deceleration stage in inertial confinement fusion. Physics of Plasmas, 2015, 22, 032702. | 1.9 | 45 |
| 50 | Adiabat-shaping in indirect drive inertial confinement fusion. Physics of Plasmas, 2015, 22, 052702. | 1.9 | 31 |
| 51 | Hydrodynamic instability growth of three-dimensional, â€œnative-roughnessâ€•modulations in x-ray driven, spherical implosions at the National Ignition Facility. Physics of Plasmas, 2015, 22, . | 1.9 | 46 |
| 52 | A survey of pulse shape options for a revised plastic ablator ignition design. Physics of Plasmas, 2014, 21, . | 1.9 | 50 |
| 53 | Inhibition of turbulence in inertial-confinement-fusion hot spots by viscous dissipation. Physical Review E, 2014, 89, 053106. | 2.1 | 97 |