

Lin Yin

List of Publications by Year in descending order

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117
papers

5,398
citations

76326

40
h-index

82547

72
g-index

125
all docs

125
docs citations

125
times ranked

2748
citing authors

#	ARTICLE	IF	CITATIONS
1	Cross-beam energy transfer saturation: ion heating and pump depletion. Plasma Physics and Controlled Fusion, 2022, 64, 034003.	2.1	4
2	Experimental quantification of the impact of heterogeneous mix on thermonuclear burn. Physics of Plasmas, 2022, 29, .	1.9	7
3	Cross-beam energy transfer in direct-drive ICF. II. Theory and simulation of mitigation through increased laser bandwidth. Physics of Plasmas, 2022, 29, .	1.9	10
4	Cross-beam energy transfer in direct-drive ICF. I. Nonlinear and kinetic effects. Physics of Plasmas, 2022, 29, .	1.9	7
5	Experiments and simulations of isochorically heated warm dense carbon foam at the Texas Petawatt Laser. Matter and Radiation at Extremes, 2021, 6, .	3.9	10
6	Forward and backward stimulated Raman scattering in multi-speckled beams: Density dependence and effects on cross-beam energy transfer. Physics of Plasmas, 2021, 28, .	1.9	4
7	Cross-Beam Energy Transfer Saturation by Ion Heating. Physical Review Letters, 2021, 126, 075002.	7.8	19
8	Results from single-shock Marble experiments studying thermonuclear burn in the presence of heterogeneous mix on the National Ignition Facility. High Energy Density Physics, 2021, 38, 100929.	1.5	10
9	Single and double shell ignition targets for the national ignition facility at 527â€‰nm. Physics of Plasmas, 2021, 28, .	1.9	3
10	Cross-beam energy transfer saturation by ion trapping-induced detuning. Physics of Plasmas, 2021, 28, 082705.	1.9	7
11	Creating QED photon jets with present-day lasers. Physical Review Research, 2021, 3, .	3.6	2
12	Plasma transport simulations of Rayleighâ€“Taylor instability in near-ICF deceleration regimes. Physics of Plasmas, 2021, 28, .	1.9	7
13	Evidence for trapping-induced nonlinear frequency shifts in Langmuir waves driven via stimulated Raman scattering. Physics of Plasmas, 2021, 28, 092103.	1.9	2
14	A semi-implicit, energy- and charge-conserving particle-in-cell algorithm for the relativistic Vlasov-Maxwell equations. Journal of Computational Physics, 2020, 407, 109228.	3.8	21
15	Streaked optical pyrometer for proton-driven isochoric heating experiments of solid and foam targets. AIP Advances, 2020, 10, 045220.	1.3	1
16	Saturation of cross-beam energy transfer for multispeckled laser beams involving both ion and electron dynamics. Physics of Plasmas, 2019, 26, 082708.	1.9	24
17	Plasma kinetic effects on interfacial mix and burn rates in multispatial dimensions. Physics of Plasmas, 2019, 26, .	1.9	18
18	Laser-ion acceleration using mixed compositions: Tailoring the target for each species. Physics of Plasmas, 2019, 26, .	1.9	1

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19	Self-similar solutions for multi-species plasma mixing by gradient driven transport. Plasma Physics and Controlled Fusion, 2018, 60, 054010.	2.1	11
20	A detailed examination of laser-ion acceleration mechanisms in the relativistic transparency regime using tracers. Physics of Plasmas, 2018, 25, .	1.9	11
21	Improved yield and control of spectra from high-intensity laser-generated neutron beams. Laser and Particle Beams, 2018, 36, 15-21.	1.0	4
22	Harnessing the relativistic Buneman instability for laser-ion acceleration in the transparency regime. Physics of Plasmas, 2018, 25, .	1.9	6
23	Diffusion-driven fluid dynamics in ideal gases and plasmas. Physics of Plasmas, 2018, 25, 062102.	1.9	12
24	Effects of dimensionality on kinetic simulations of laser-ion acceleration in the transparency regime. Physics of Plasmas, 2017, 24, .	1.9	32
25	Laser-plasmas in the relativistic-transparency regime: Science and applications. Physics of Plasmas, 2017, 24, 056702.	1.9	44
26	A Simple Model of Hohlräum Power Balance and Mitigation of SRS. Journal of Physics: Conference Series, 2016, 688, 012002.	0.4	0
27	Multi-dimensional dynamics of stimulated Brillouin scattering in a laser speckle: Ion acoustic wave bowing, breakup, and laser-seeded two-ion-wave decay. Physics of Plasmas, 2016, 23, .	1.9	23
28	Plasma kinetic effects on interfacial mix. Physics of Plasmas, 2016, 23, .	1.9	32
29	Scaling of ion energies in the relativistic-induced transparency regime. Laser and Particle Beams, 2015, 33, 695-703.	1.0	15
30	On the analysis of inhomogeneous magnetic field spectrometer for laser-driven ion acceleration. Review of Scientific Instruments, 2015, 86, 033303.	1.3	4
31	Use of external magnetic fields in hohlraum plasmas to improve laser-coupling. Physics of Plasmas, 2015, 22, .	1.9	45
32	Stimulated scattering in laser driven fusion and high energy density physics experiments. Physics of Plasmas, 2014, 21, .	1.9	21
33	Fast ignition with laser-driven proton and ion beams. Nuclear Fusion, 2014, 54, 054006.	3.5	119
34	Control of Stimulated Raman Scattering in the Strongly Nonlinear and Kinetic Regime Using Spike Trains of Uneven Duration and Delay. Physical Review Letters, 2014, 113, 045002.	7.8	53
35	Laser-driven 1â€‰GeV carbon ions from preheated diamond targets in the break-out afterburner regime. Physics of Plasmas, 2013, 20, 083103.	1.9	65
36	A review of laserâ€™plasma interaction physics of indirect-drive fusion. Plasma Physics and Controlled Fusion, 2013, 55, 103001.	2.1	86

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37	Self-organized coherent bursts of stimulated Raman scattering and speckle interaction in multi-speckled laser beams. <i>Physics of Plasmas</i> , 2013, 20, 012702.	1.9	42
38	Beam profiles of proton and carbon ions in the relativistic transparency regime. <i>New Journal of Physics</i> , 2013, 15, 123035.	2.9	43
39	Laser-driven ion acceleration from relativistically transparent nanotargets. <i>New Journal of Physics</i> , 2013, 15, 085015.	2.9	75
40	Efficient carbon ion beam generation from laser-driven volume acceleration. <i>New Journal of Physics</i> , 2013, 15, 023007.	2.9	66
41	Challenges and Progress of Laser-driven Ion Acceleration beyond 100 MeV/amu. , 2013, , .		0
42	Fast Ignition With Laser-Driven Ion Beams: Progress On Ignitor Beam Development Based On A New Relativistic Laser-Plasma Regime. , 2013, , .		0
43	Trapping induced nonlinear behavior of backward stimulated Raman scattering in multi-speckled laser beams. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	50
44	Self-Organized Bursts of Coherent Stimulated Raman Scattering and Hot Electron Transport in Speckled Laser Plasma Media. <i>Physical Review Letters</i> , 2012, 108, 245004.	7.8	30
45	Dynamics of relativistic transparency and optical shuttering in expanding overdense plasmas. <i>Nature Physics</i> , 2012, 8, 763-769.	16.7	155
46	Three-Dimensional Dynamics of Breakout Afterburner Ion Acceleration Using High-Contrast Short-Pulse Laser and Nanoscale Targets. <i>Physical Review Letters</i> , 2011, 107, 045003.	7.8	155
47	A novel high resolution ion wide angle spectrometer. <i>Review of Scientific Instruments</i> , 2011, 82, 043301.	1.3	34
48	Experimental demonstration of particle energy, conversion efficiency and spectral shape required for ion-based fast ignition. <i>Nuclear Fusion</i> , 2011, 51, 083011.	3.5	57
49	Monoenergetic Ion Beam Generation by Driving Ion Solitary Waves with Circularly Polarized Laser Light. <i>Physical Review Letters</i> , 2011, 107, 115002.	7.8	67
50	Mono-energetic ion beam acceleration in solitary waves during relativistic transparency using high-contrast circularly polarized short-pulse laser and nanoscale targets. <i>Physics of Plasmas</i> , 2011, 18, 053103.	1.9	24
51	Role of electron physics in the development of turbulent magnetic reconnection in collisionless plasmas. <i>Nature Physics</i> , 2011, 7, 539-542.	16.7	474
52	Particle energization in 3D magnetic reconnection of relativistic pair plasmas. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	56
53	Secondary Island Formation in Collisional and Collisionless Kinetic Simulations of Magnetic Reconnection. <i>AIP Conference Proceedings</i> , 2011, , .	0.4	17
54	Improving beam spectral and spatial quality by double-foil target in laser ion acceleration. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2011, 14, .	1.8	9

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55	A double-foil target for improving beam quality in laser ion acceleration with thin foils. Physics of Plasmas, 2011, 18, .	1.9	17
56	Observation of amplification of light by Langmuir waves and its saturation on the electron kinetic timescale. Journal of Plasma Physics, 2011, 77, 521-528.	2.1	24
57	Multi-beam effects on backscatter and its saturation in experiments with conditions relevant to ignition. Physics of Plasmas, 2011, 18, .	1.9	38
58	Break-out afterburner ion acceleration in the longer laser pulse length regime. Physics of Plasmas, 2011, 18, .	1.9	51
59	Influence of binary Coulomb collisions on nonlinear stimulated Raman backscatter in the kinetic regime. Physics of Plasmas, 2011, 18, 032707.	1.9	7
60	Ultraintense laser interaction with nanoscale targets: a simple model for layer expansion and ion acceleration. Journal of Physics: Conference Series, 2010, 244, 042022.	0.4	4
61	Theory of laser ion acceleration from a foil target of nanometer thickness. Applied Physics B: Lasers and Optics, 2010, 98, 711-721.	2.2	42
62	Driven magnetic reconnection near the Dreicer limit. Physics of Plasmas, 2010, 17, .	1.9	25
63	Influence of Coulomb collisions on the structure of reconnection layers. Physics of Plasmas, 2009, 16, .	1.9	68
64	Recent progress on ion-driven fast ignition. , 2009, , .		0
65	Onset and saturation of backward stimulated Raman scattering of laser in trapping regime in three spatial dimensions. Physics of Plasmas, 2009, 16, 113101.	1.9	50
66	Investigation of stimulated Raman scattering using a short-pulse diffraction limited laser beam near the instability threshold. Laser and Particle Beams, 2009, 27, 185-190.	1.0	31
67	Advances in petascale kinetic plasma simulation with VPIC and Roadrunner. Journal of Physics: Conference Series, 2009, 180, 012055.	0.4	144
68	INERTIAL CONFINEMENT FUSION RESEARCH AT LOS ALAMOS NATIONAL LABORATORY. , 2009, , .		0
69	Transition from collisional to kinetic regimes in large-scale reconnection layers. Physical Review Letters, 2009, 103, 065004.	7.8	210
70	Generation of 0.5GEV C6+ ions from irradiation of ultra-thin foils with high contrast, high intensity laser pulses. , 2009, , .		0
71	Progress and prospects of ion-driven fast ignition. Nuclear Fusion, 2009, 49, 065004.	3.5	117
72	Enhanced Laser-Driven Ion Acceleration in the Relativistic Transparency Regime. Physical Review Letters, 2009, 103, 045002.	7.8	208

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73	Simulation of the Cygnus Rod-Pinch Diode Using the Radiographic Chain Model. IEEE Transactions on Plasma Science, 2009, 37, 530-537.	1.3	6
74	Ultrahigh performance three-dimensional electromagnetic relativistic kinetic plasma simulation. Physics of Plasmas, 2008, 15, .	1.9	379
75	The relationship between $\langle j \rangle$ and $\langle \tilde{z} \rangle$ in the magnetotail plasma sheet: Cluster observations. Journal of Geophysical Research, 2008, 113, .	3.3	14
76	Langmuir wave filamentation instability. Physics of Plasmas, 2008, 15, .	1.9	41
77	0.374 Pflop/s trillion-particle kinetic modeling of laser plasma interaction on roadrunner. , 2008, , .		39
78	Saturation of backward stimulated scattering of laser in kinetic regime: Wavefront bowing, trapped particle modulational instability, and trapped particle self-focusing of plasma waves. Physics of Plasmas, 2008, 15, .	1.9	64
79	Three-dimensional simulation of KeV photon laser operation using GeV ultra short laser-generated electron bunches. , 2008, , .		0
80	Three-Dimensional Dynamics of Collisionless Magnetic Reconnection in Large-Scale Pair Plasmas. Physical Review Letters, 2008, 101, 125001.	7.8	50
81	New Insights Into Collisionless Magnetic Reconnection Enabled by Ultra-High Performance Three-Dimensional Kinetic Simulations. IEEE Transactions on Plasma Science, 2008, 36, 1110-1111.	1.3	1
82	Kinetic simulations of stimulated Raman and Brillouin scattering of trident short-pulse laser in a single-hot-spot. Journal of Physics: Conference Series, 2008, 112, 022033.	0.4	2
83	Studies in capsule design for mid-Z ion-driven fast ignition. Journal of Physics: Conference Series, 2008, 112, 022029.	0.4	11
84	Investigation of laser plasma instabilities using picosecond laser pulses. Journal of Physics: Conference Series, 2008, 112, 022042.	0.4	10
85	Progress on ion based fast ignition. Journal of Physics: Conference Series, 2008, 112, 022051.	0.4	21
86	Kinetic Alfvén waves and electron physics. I. Generation from ion-ion streaming. Physics of Plasmas, 2007, 14, 062104.	1.9	17
87	Kinetic Alfvén waves and electron physics. II. Oblique slow shocks. Physics of Plasmas, 2007, 14, 062105.	1.9	8
88	Saturation of Backward Stimulated Scattering of a Laser Beam in the Kinetic Regime. Physical Review Letters, 2007, 99, 265004.	7.8	75
89	Relativistic Buneman instability in the laser breakout afterburner. Physics of Plasmas, 2007, 14, .	1.9	88
90	Laser-driven ion accelerators: Spectral control, monoenergetic ions and new acceleration mechanisms. Laser and Particle Beams, 2007, 25, 3-8.	1.0	80

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91	Monoenergetic and GeV ion acceleration from the laser breakout afterburner using ultrathin targets. <i>Physics of Plasmas</i> , 2007, 14, 056706.	1.9	299
92	Nonlinear backward stimulated Raman scattering from electron beam acoustic modes in the kinetic regime. <i>Physics of Plasmas</i> , 2006, 13, 072701.	1.9	42
93	GeV laser ion acceleration from ultrathin targets: The laser break-out afterburner. <i>Laser and Particle Beams</i> , 2006, 24, 291-298.	1.0	283
94	Alfvén-cyclotron scattering of solar wind ions: Hybrid simulations. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	25
95	Particle-in-cell studies of laser-driven hot spots and a statistical model for mesoscopic properties of Raman backscatter. <i>European Physical Journal Special Topics</i> , 2006, 133, 253-257.	0.2	11
96	Effects of ion composition on backward stimulated Raman and Brillouin scattering in a laser-driven hot spot. <i>European Physical Journal Special Topics</i> , 2006, 133, 335-337.	0.2	3
97	Theory and modeling of ion acceleration from the interaction of ultra-intense lasers with solid density targets. <i>European Physical Journal Special Topics</i> , 2006, 133, 467-471.	0.2	5
98	Nonlinear development of stimulated Raman scattering from electrostatic modes excited by self-consistent non-Maxwellian velocity distributions. <i>Physical Review E</i> , 2006, 73, 025401.	2.1	40
99	Solar wind ion scattering by Alfvén-cyclotron fluctuations: ion temperature anisotropies versus relative alpha particle densities. <i>New Journal of Physics</i> , 2006, 8, 17-17.	2.9	11
100	Theory of Laser Acceleration of Light-Ion Beams from Interaction of Ultrahigh-Intensity Lasers with Layered Targets. <i>Physical Review Letters</i> , 2006, 97, 115002.	7.8	66
101	Different $k \perp$ regimes for nonlinear effects on Langmuir waves. <i>Physics of Plasmas</i> , 2006, 13, 055906.	1.9	61
102	Nonlinear Spectral Signatures and Spatiotemporal Behavior of Stimulated Raman Scattering from Single Laser Speckles. <i>Physical Review Letters</i> , 2005, 95, 245003.	7.8	37
103	Observation of a Transition from Fluid to Kinetic Nonlinearities for Langmuir Waves Driven by Stimulated Raman Backscatter. <i>Physical Review Letters</i> , 2005, 94, 175003.	7.8	94
104	Forced magnetic reconnection. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	96
105	Dissipation in oblique slow shocks. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	6
106	A maximum likelihood method for linking particle-in-cell and Monte-Carlo transport simulations. <i>Computer Physics Communications</i> , 2004, 164, 311-317.	7.5	7
107	Electron quasi-viscous effects in collisionless slow-mode shocks. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	5
108	Plasma pressure tensor effects on reconnection: Hybrid and Hall-magnetohydrodynamics simulations. <i>Physics of Plasmas</i> , 2003, 10, 1595-1604.	1.9	25

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109	Consequences of proton and alpha anisotropies in the solar wind: Hybrid simulations. Journal of Geophysical Research, 2003, 108, .	3.3	51
110	Simulations of current sheet thinning and reconnection. Journal of Geophysical Research, 2002, 107, SMP 39-1-SMP 39-11.	3.3	11
111	Particle Hall-MHD simulation of collisionless reconnection: Ion gyro-radius correction. Geophysical Research Letters, 2001, 28, 2173-2176.	4.0	8
112	Hybrid and Hall-MHD simulations of collisionless reconnection: Dynamics of the electron pressure tensor. Journal of Geophysical Research, 2001, 106, 10761-10775.	3.3	41
113	Role of electron physics in slow mode shocks. Journal of Geophysical Research, 2001, 106, 25031-25039.	3.3	10
114	Alpha/proton magnetosonic instability in the solar wind. Journal of Geophysical Research, 2000, 105, 20989-20996.	3.3	46
115	Electromagnetic alpha/proton instabilities in the solar wind. Geophysical Research Letters, 2000, 27, 1355-1358.	4.0	59
116	Generation of electrostatic waves by discontinuous electron distributions. Journal of Geophysical Research, 1999, 104, 12415-12429.	3.3	6
117	Plasma waves in the Earth's electron foreshock: 1. Time-of-flight electron distributions in a generalized Lorentzian plasma and dispersion solutions. Journal of Geophysical Research, 1998, 103, 29595-29617.	3.3	14