Hideo Nagatomo

List of Publications by Year in Descending Order

78 papers	783 citations	16 h-index	25 g-index
88 ext. papers	890 ext. citations	2.5 avg, IF	3.21 L-index

#	Paper	IF	Citations
78	Preliminary Cryogenic Layering by the Infrared Heating Method Modified with Cone Temperature Control for the Polystyrene Shell FIREX Target. *Plasma and Fusion Research*, **2021**, 16, 1404099-1404099	0.5	
77	Enhancement of Ablative Rayleigh-Taylor Instability Growth by Thermal Conduction Suppression in a Magnetic Field. *Physical Review Letters*, **2021**, 127, 165001	7.4	2
76	Direct-drive implosion experiment of diamond capsules fabricated with hot filament chemical vapor deposition technique. *Physics of Plasmas*, **2021**, 28, 104501	2.1	0
75	Pulse duration constraint of whistler waves in magnetized dense plasma. *Physical Review E*, **2021**, 104, 035205	2.4	
74	Surface structure on diamond foils generated by spatially nonuniform laser irradiation. *Scientific Reports*, **2020**, 10, 9017	4.9	1
73	Intensification of laser-produced relativistic electron beam using converging magnetic fields for ignition in fast ignition laser fusion. *High Energy Density Physics*, **2020**, 36, 100841	1.2	2
72	Petapascal Pressure Driven by Fast Isochoric Heating with a Multipicosecond Intense Laser Pulse. *Physical Review Letters*, **2020**, 124, 035001	7.4	13
71	The role of hot electrons on ultrahigh pressure generation relevant to shock ignition conditions. *High Energy Density Physics*, **2020**, 37, 100892	1.2	1
70	Study of fast ignition target design for ignition and burning experiments. *Nuclear Fusion*, **2019**, 59, 106055	3.3	5
69	Electromagnetic field growth triggering super-ponderomotive electron acceleration during multi-picosecond laser-plasma interaction. *Communications Physics*, **2019**, 2,	5.4	8
68	Direct observation of imploded core heating via fast electrons with super-penetration scheme. *Nature Communications*, **2019**, 10, 5614	17.4	4
67	Effect of equation of state on laser imprinting by comparing diamond and polystyrene foils. *Physics of Plasmas*, **2018**, 25, 032706	2.1	7
66	Characteristics of Laser-Driven Neutron Sources. *The Review of Laser Engineering*, **2018**, 46, 564	0	
65	Magnetized fast isochoric laser heating for efficient creation of ultra-high-energy-density states. *Nature Communications*, **2018**, 9, 3937	17.4	53
64	Boosting laser-ion acceleration with multi-picosecond pulses. *Scientific Reports*, **2017**, 7, 42451	4.9	51
63	Validation of thermal conductivity in magnetized plasmas using particle-in-cell simulations. *Physics of Plasmas*, **2017**, 24, 042117	2.1	3
62	Compression and electron beam heating of solid target under the external magnetic field for fast ignition. *Nuclear Fusion*, **2017**, 57, 086009	3.3	5

61	Magnetohydrodynamics of laser-produced high-energy-density plasma in a strong external magnetic field. *Physical Review E*, **2017**, 95, 053204	2.4	21
60	Fast ion acceleration in a foil plasma heated by a multi-picosecond high intensity laser. *Physics of Plasmas*, **2017**, 24, 073111	2.1	22
59	Assessing infrared intensity using the evaporation rate of liquid hydrogen inside a cryogenic integrating sphere for laser fusion targets. *Review of Scientific Instruments*, **2017**, 88, 075103	1.7	2
58	Confirmation of hot electron preheat with a Cu foam sphere on GEKKO-LFEX laser facility. *Physics of Plasmas*, **2017**, 24, 112709	2.1	1
57	Self-generated magnetic dipoles in weakly magnetized beam-plasma system. *Physical Review E*, **2015**, 91, 023107	2.4	7
56	Control of an electron beam using strong magnetic field for efficient core heating in fast ignition. *Nuclear Fusion*, **2015**, 55, 053022	3.3	35
55	Asymmetric implosion of a cone-guided target irradiated by Gekko XII laser. *Laser and Particle Beams*, **2015**, 33, 367-378	0.9	7
54	Computational study of magnetic field compression by laser-driven implosion. *Nuclear Fusion*, **2015**, 55, 093028	3.3	15
53	Heating efficiency evaluation with mimicking plasma conditions of integrated fast-ignition experiment. *Physical Review E*, **2015**, 91, 063102	2.4	23
52	Implosion Simulation by Hydro Code Coupled with Laser Absorption using New Raytrace Algorithm. *Plasma and Fusion Research*, **2014**, 9, 3404090-3404090	0.5	
51	Energy Transportation by MeV Hot Electrons in Fast Ignition Plasma Driven with LFEX PW Laser. *Plasma and Fusion Research*, **2014**, 9, 1404118-1404118	0.5	
50	Stabilization of radiation reaction with vacuum polarization. *Progress of Theoretical and Experimental Physics*, **2014**, 2014, 43A01-0	5.4	8
49	Effects of laser profiles on fast electron generation under the same laser energy. *Laser and Particle Beams*, **2013**, 31, 371-377	0.9	2
48	Extremely high-pressure generation and compression with laser implosion plasmas. *Applied Physics Letters*, **2013**, 102, 183501	3.4	3
47	Simulation analysis of the effects of an initial cone position and opening angle on a cone-guided implosion. *Physics of Plasmas*, **2013**, 20, 102703	2.1	1
46	Hot Electron Spectra in Plain, Cone and Integrated Targets for FIREX-I using Electron Spectrometer. *Plasma and Fusion Research*, **2013**, 8, 2404125-2404125	0.5	2
45	High-energy-density plasmas generation on GEKKO-LFEX laser facility for fast-ignition laser fusion studies and laboratory astrophysics. *Plasma Physics and Controlled Fusion*, **2012**, 54, 124042	2	35
44	Effects of CH foam preplasma on fast ignition. *Laser and Particle Beams*, **2012**, 30, 189-197	0.9	3

43	X-ray backlight measurement of preformed plasma by kJ-class petawatt LFEX laser. *Journal of Applied Physics*, **2012**, 112, 063301	2.5	9
42	Generation of pre-formed plasma and its reduction for fast-ignition. *Laser and Particle Beams*, **2012**, 30, 95-102	0.9	16
41	Effects of long rarefied plasma on fast electron generation for FIREX-I targets. *Laser and Particle Beams*, **2012**, 30, 103-109	0.9	5
40	Theoretical Study of Ultra-Relativistic Laser Electron Interaction with Radiation Reaction by Quantum Description. *Plasma and Fusion Research*, **2012**, 7, 2404010-2404010	0.5	2
39	Equation of motion with radiation reaction in ultrarelativistic laser-electron interactions. *Physics of Plasmas*, **2011**, 18, 123101	2.1	11
38	Magnetic collimation of fast electrons in specially engineered targets irradiated by ultraintense laser pulses. *Physics of Plasmas*, **2011**, 18, 023106	2.1	12
37	Theoretical Study of Ultra-Relativistic Laser Electron Interaction in the Strong Radiation Reaction Regime. *Plasma and Fusion Research*, **2011**, 6, 2404099-2404099	0.5	5
36	Prepulse effects on the generation of high energy electrons in fast ignition scheme. *Physics of Plasmas*, **2010**, 17, 023106	2.1	36
35	Proton Generation and Terahertz Radiation from A Thin-Foil Target with A High-Intensity Laser. *The Review of Laser Engineering*, **2010**, 38, 702-705	0	
34	Diagnostic of laser contrast using target reflectivity. *Applied Physics Letters*, **2009**, 94, 241102	3.4	27
33	Experimental and computational characterization of hydrodynamic expansion of a preformed plasma from thin-foil target for laser-driven proton acceleration. *Journal of Plasma Physics*, **2009**, 75, 609-617	2.7	4
32	High-intensity laser-driven particle and electromagnetic wave sources for science, industry, and medicine. *Frontiers of Optoelectronics in China*, **2009**, 2, 299-303		
31	Control of laser-accelerated proton beams by modifying the target density with ASE. *European Physical Journal D*, **2009**, 55, 421-425	1.3	4
30	Shock Hugoniot and temperature data for polystyrene obtained with quartz standard. *Physics of Plasmas*, **2009**, 16, 062702	2.1	40
29	Study of ultraintense laser propagation in overdense plasmas for fast ignitiona). *Physics of Plasmas*, **2009**, 16, 056307	2.1	22
28	Ion Acceleration Using Temporally-Controlled High-Intensity Laser Pulses. *The Review of Laser Engineering*, **2009**, 37, 449-454	0	
27	Advanced Target Design for the FIREX-I Project. *Plasma and Fusion Research*, **2009**, 4, S1001-S1001	0.5	1
26	Simultaneous Generation of UV Harmonics and Protons From a Thin-Foil Target With a High-Intensity Laser. *IEEE Transactions on Plasma Science*, **2008**, 36, 1812-1816	1.3	3

25	Rayleigh–Taylor instability growth on low-density foam targets. *Physics of Plasmas*, **2008**, 15, 092109	2.1	12
24	Generation and confinement of high energy electrons generated by irradiation of ultra-intense short laser pulses onto cone targets. *Laser and Particle Beams*, **2008**, 26, 207-212	0.9	19
23	Probing of nonlinear evolution of laser wakefield by Raman scattering of laser light. *Physics of Plasmas*, **2008**, 15, 093107	2.1	7
22	Efficient production of a collimated MeV proton beam from a polyimide target driven by an intense femtosecond laser pulse. *Physics of Plasmas*, **2008**, 15, 053104	2.1	37
21	High Intensity Laser Propagation though Overdense Plasmas. *The Review of Laser Engineering*, **2008** , 36, 1139-1141	0	
20	Particle-in-Cell Simulation of the Measurement of Laser Wakefields with Raman Scattering of Probe Laser Light. *Plasma and Fusion Research*, **2008**, 3, 063-063	0.5	
19	Proton Acceleration in the Interaction of an Intense Laser Light with a Cone Plasma Target and Coated Proton Layer. *Plasma and Fusion Research*, **2008**, 3, 062-062	0.5	
18	Relativistic Electron Fluid Simulation and Studies on Electric Shock Wave Formation. *Journal of the Physical Society of Japan*, **2007**, 76, 044502	1.5	
17	Recent results and future prospects of laser fusion research at ILE, Osaka. *European Physical Journal D*, **2007**, 44, 259-264	1.3	9
16	Holistic Simulation for FIREX Project with FI3. *Laser and Particle Beams*, **2007**, 25, 621-629	0.9	32
15	High Energy Electron Generation by Laser-Cone Interaction. *Plasma and Fusion Research*, **2007**, 2, 018-018	0.5	4
14	Fast ignition integrated interconnecting code project for cone-guided targets. *Laser and Particle Beams*, **2006**, 24, 191-198	0.9	42
13	Generation and transport of fast electrons inside cone targets irradiated by intense laser pulses. *Laser and Particle Beams*, **2006**, 24, 5-8	0.9	20
12	Characterization of thin-foil preformed plasmas for high-intensity laser plasma interactions. *Acta Physica Hungarica A Heavy Ion Physics*, **2006**, 26, 327-333		1
11	Dynamics of Self-Generated Magnetic Fields in Stagnation Phase and their Effects on Hot Spark Formation. *Plasma and Fusion Research*, **2006**, 1, 020-020	0.5	5
10	The formation of high-density core plasma in non-spherical implosion using high-resolution two-dimensional integrated implosion code. *Journal of Plasma Physics*, **2006**, 72, 791	2.7	6
9	Present Status of Fast Ignition Research and Prospects of FIREX Project. *Fusion Science and Technology*, **2005**, 47, 662-666	1.1	16
8	Multi-imaging x-ray streak camera for ultrahigh-speed two-dimensional x-ray imaging of imploded core plasmas (invited). *Review of Scientific Instruments*, **2004**, 75, 3921-3925	1.7	15

7	Characterization of Extreme UV Radiation from Laser Produced Spherical Tin Plasmas for Use in Lithography. *Journal of Plasma and Fusion Research*, **2004**, 80, 325-330		10
6	Advances in Plasma and Fusion Simulation and Prospects for the Future Progress of Laser Fusion Simulations and Network Computing. *Journal of Plasma and Fusion Research*, **2004**, 80, 396-400		
5	Integration of Individual Simulation Codes for Fast Ignition. *The Review of Laser Engineering*, **2004**, 32, 324-329	0	
4	Numerical Simulation of Non-spherical Implosion Related to Fast Ignition. *AIP Conference Proceedings*, **2003**,	0	5
3	Design of foam-buffered high gain target with Fokker–Planck implosion simulation for thermal insulation and imprint mitigation. *Physics of Plasmas*, **2003**, 10, 2608-2611	2.1	2
2	Prospect for Multiple Time and Spatial Scale Simulation Research of Laser Fusion Plasmas. *Journal of Plasma and Fusion Research*, **2003**, 79, 489-495		1
1	Nonlinear Evolution of Single Spike Structure and Vortex in the Richtmyer-Meshkov Instability. *Journal of Plasma and Fusion Research*, **1999**, 75-CD, 201-210		1