

# Hideo Nagatomo

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Magnetized fast isochoric laser heating for efficient creation of ultra-high-energy-density states. <i>Nature Communications</i> , <b>2018</b> , 9, 3937	17.4	53
77	Boosting laser-ion acceleration with multi-picosecond pulses. <i>Scientific Reports</i> , <b>2017</b> , 7, 42451	4.9	51
76	Fast ignition integrated interconnecting code project for cone-guided targets. <i>Laser and Particle Beams</i> , <b>2006</b> , 24, 191-198	0.9	42
75	Shock Hugoniot and temperature data for polystyrene obtained with quartz standard. <i>Physics of Plasmas</i> , <b>2009</b> , 16, 062702	2.1	40
74	Efficient production of a collimated MeV proton beam from a polyimide target driven by an intense femtosecond laser pulse. <i>Physics of Plasmas</i> , <b>2008</b> , 15, 053104	2.1	37
73	Prepulse effects on the generation of high energy electrons in fast ignition scheme. <i>Physics of Plasmas</i> , <b>2010</b> , 17, 023106	2.1	36
72	Control of an electron beam using strong magnetic field for efficient core heating in fast ignition. <i>Nuclear Fusion</i> , <b>2015</b> , 55, 053022	3.3	35
71	High-energy-density plasmas generation on GEKKO-LFEX laser facility for fast-ignition laser fusion studies and laboratory astrophysics. <i>Plasma Physics and Controlled Fusion</i> , <b>2012</b> , 54, 124042	2	35
70	Holistic Simulation for FIREX Project with F13. <i>Laser and Particle Beams</i> , <b>2007</b> , 25, 621-629	0.9	32
69	Diagnostic of laser contrast using target reflectivity. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 241102	3.4	27
68	Heating efficiency evaluation with mimicking plasma conditions of integrated fast-ignition experiment. <i>Physical Review E</i> , <b>2015</b> , 91, 063102	2.4	23
67	Fast ion acceleration in a foil plasma heated by a multi-picosecond high intensity laser. <i>Physics of Plasmas</i> , <b>2017</b> , 24, 073111	2.1	22
66	Study of ultraintense laser propagation in overdense plasmas for fast ignition). <i>Physics of Plasmas</i> , <b>2009</b> , 16, 056307	2.1	22
65	Magnetohydrodynamics of laser-produced high-energy-density plasma in a strong external magnetic field. <i>Physical Review E</i> , <b>2017</b> , 95, 053204	2.4	21
64	Generation and transport of fast electrons inside cone targets irradiated by intense laser pulses. <i>Laser and Particle Beams</i> , <b>2006</b> , 24, 5-8	0.9	20
63	Generation and confinement of high energy electrons generated by irradiation of ultra-intense short laser pulses onto cone targets. <i>Laser and Particle Beams</i> , <b>2008</b> , 26, 207-212	0.9	19
62	Generation of pre-formed plasma and its reduction for fast-ignition. <i>Laser and Particle Beams</i> , <b>2012</b> , 30, 95-102	0.9	16

61	Present Status of Fast Ignition Research and Prospects of FIREX Project. <i>Fusion Science and Technology</i> , <b>2005</b> , 47, 662-666	1.1	16
60	Computational study of magnetic field compression by laser-driven implosion. <i>Nuclear Fusion</i> , <b>2015</b> , 55, 093028	3.3	15
59	Multi-imaging x-ray streak camera for ultrahigh-speed two-dimensional x-ray imaging of imploded core plasmas (invited). <i>Review of Scientific Instruments</i> , <b>2004</b> , 75, 3921-3925	1.7	15
58	Petapascal Pressure Driven by Fast Isochoric Heating with a Multipicosecond Intense Laser Pulse. <i>Physical Review Letters</i> , <b>2020</b> , 124, 035001	7.4	13
57	Magnetic collimation of fast electrons in specially engineered targets irradiated by ultraintense laser pulses. <i>Physics of Plasmas</i> , <b>2011</b> , 18, 023106	2.1	12
56	Rayleigh-Taylor instability growth on low-density foam targets. <i>Physics of Plasmas</i> , <b>2008</b> , 15, 092109	2.1	12
55	Equation of motion with radiation reaction in ultrarelativistic laser-electron interactions. <i>Physics of Plasmas</i> , <b>2011</b> , 18, 123101	2.1	11
54	Characterization of Extreme UV Radiation from Laser Produced Spherical Tin Plasmas for Use in Lithography. <i>Journal of Plasma and Fusion Research</i> , <b>2004</b> , 80, 325-330		10
53	X-ray backlight measurement of preformed plasma by kJ-class petawatt LFEX laser. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 063301	2.5	9
52	Recent results and future prospects of laser fusion research at ILE, Osaka. <i>European Physical Journal D</i> , <b>2007</b> , 44, 259-264	1.3	9
51	Electromagnetic field growth triggering super-ponderomotive electron acceleration during multi-picosecond laser-plasma interaction. <i>Communications Physics</i> , <b>2019</b> , 2,	5.4	8
50	Stabilization of radiation reaction with vacuum polarization. <i>Progress of Theoretical and Experimental Physics</i> , <b>2014</b> , 2014, 43A01-0	5.4	8
49	Self-generated magnetic dipoles in weakly magnetized beam-plasma system. <i>Physical Review E</i> , <b>2015</b> , 91, 023107	2.4	7
48	Effect of equation of state on laser imprinting by comparing diamond and polystyrene foils. <i>Physics of Plasmas</i> , <b>2018</b> , 25, 032706	2.1	7
47	Asymmetric implosion of a cone-guided target irradiated by Gekko XII laser. <i>Laser and Particle Beams</i> , <b>2015</b> , 33, 367-378	0.9	7
46	Probing of nonlinear evolution of laser wakefield by Raman scattering of laser light. <i>Physics of Plasmas</i> , <b>2008</b> , 15, 093107	2.1	7
45	The formation of high-density core plasma in non-spherical implosion using high-resolution two-dimensional integrated implosion code. <i>Journal of Plasma Physics</i> , <b>2006</b> , 72, 791	2.7	6
44	Compression and electron beam heating of solid target under the external magnetic field for fast ignition. <i>Nuclear Fusion</i> , <b>2017</b> , 57, 086009	3.3	5

43	Study of fast ignition target design for ignition and burning experiments. <i>Nuclear Fusion</i> , <b>2019</b> , 59, 106055	5	5
42	Effects of long rarefied plasma on fast electron generation for FIREX-I targets. <i>Laser and Particle Beams</i> , <b>2012</b> , 30, 103-109	0.9	5
41	Dynamics of Self-Generated Magnetic Fields in Stagnation Phase and their Effects on Hot Spark Formation. <i>Plasma and Fusion Research</i> , <b>2006</b> , 1, 020-020	0.5	5
40	Numerical Simulation of Non-spherical Implosion Related to Fast Ignition. <i>AIP Conference Proceedings</i> , <b>2003</b> ,	0	5
39	Theoretical Study of Ultra-Relativistic Laser Electron Interaction in the Strong Radiation Reaction Regime. <i>Plasma and Fusion Research</i> , <b>2011</b> , 6, 2404099-2404099	0.5	5
38	Experimental and computational characterization of hydrodynamic expansion of a preformed plasma from thin-foil target for laser-driven proton acceleration. <i>Journal of Plasma Physics</i> , <b>2009</b> , 75, 609-617	2.7	4
37	Control of laser-accelerated proton beams by modifying the target density with ASE. <i>European Physical Journal D</i> , <b>2009</b> , 55, 421-425	1.3	4
36	High Energy Electron Generation by Laser-Cone Interaction. <i>Plasma and Fusion Research</i> , <b>2007</b> , 2, 018-018.5	1.5	4
35	Direct observation of imploded core heating via fast electrons with super-penetration scheme. <i>Nature Communications</i> , <b>2019</b> , 10, 5614	17.4	4
34	Validation of thermal conductivity in magnetized plasmas using particle-in-cell simulations. <i>Physics of Plasmas</i> , <b>2017</b> , 24, 042117	2.1	3
33	Extremely high-pressure generation and compression with laser implosion plasmas. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 183501	3.4	3
32	Effects of CH foam preplasma on fast ignition. <i>Laser and Particle Beams</i> , <b>2012</b> , 30, 189-197	0.9	3
31	Simultaneous Generation of UV Harmonics and Protons From a Thin-Foil Target With a High-Intensity Laser. <i>IEEE Transactions on Plasma Science</i> , <b>2008</b> , 36, 1812-1816	1.3	3
30	Intensification of laser-produced relativistic electron beam using converging magnetic fields for ignition in fast ignition laser fusion. <i>High Energy Density Physics</i> , <b>2020</b> , 36, 100841	1.2	2
29	Effects of laser profiles on fast electron generation under the same laser energy. <i>Laser and Particle Beams</i> , <b>2013</b> , 31, 371-377	0.9	2
28	Assessing infrared intensity using the evaporation rate of liquid hydrogen inside a cryogenic integrating sphere for laser fusion targets. <i>Review of Scientific Instruments</i> , <b>2017</b> , 88, 075103	1.7	2
27	Hot Electron Spectra in Plain, Cone and Integrated Targets for FIREX-I using Electron Spectrometer. <i>Plasma and Fusion Research</i> , <b>2013</b> , 8, 2404125-2404125	0.5	2
26	Design of foam-buffered high gain target with Fokker-Planck implosion simulation for thermal insulation and imprint mitigation. <i>Physics of Plasmas</i> , <b>2003</b> , 10, 2608-2611	2.1	2

25	Theoretical Study of Ultra-Relativistic Laser Electron Interaction with Radiation Reaction by Quantum Description. <i>Plasma and Fusion Research</i> , <b>2012</b> , 7, 2404010-2404010	0.5	2
24	Enhancement of Ablative Rayleigh-Taylor Instability Growth by Thermal Conduction Suppression in a Magnetic Field. <i>Physical Review Letters</i> , <b>2021</b> , 127, 165001	7.4	2
23	Surface structure on diamond foils generated by spatially nonuniform laser irradiation. <i>Scientific Reports</i> , <b>2020</b> , 10, 9017	4.9	1
22	Confirmation of hot electron preheat with a Cu foam sphere on GEKKO-LFEX laser facility. <i>Physics of Plasmas</i> , <b>2017</b> , 24, 112709	2.1	1
21	Simulation analysis of the effects of an initial cone position and opening angle on a cone-guided implosion. <i>Physics of Plasmas</i> , <b>2013</b> , 20, 102703	2.1	1
20	Characterization of thin-foil preformed plasmas for high-intensity laser plasma interactions. <i>Acta Physica Hungarica A Heavy Ion Physics</i> , <b>2006</b> , 26, 327-333		1
19	Nonlinear Evolution of Single Spike Structure and Vortex in the Richtmyer-Meshkov Instability. <i>Journal of Plasma and Fusion Research</i> , <b>1999</b> , 75-CD, 201-210		1
18	Advanced Target Design for the FIREX-I Project. <i>Plasma and Fusion Research</i> , <b>2009</b> , 4, S1001-S1001	0.5	1
17	Prospect for Multiple Time and Spatial Scale Simulation Research of Laser Fusion Plasmas. <i>Journal of Plasma and Fusion Research</i> , <b>2003</b> , 79, 489-495		1
16	The role of hot electrons on ultrahigh pressure generation relevant to shock ignition conditions. <i>High Energy Density Physics</i> , <b>2020</b> , 37, 100892	1.2	1
15	Direct-drive implosion experiment of diamond capsules fabricated with hot filament chemical vapor deposition technique. <i>Physics of Plasmas</i> , <b>2021</b> , 28, 104501	2.1	0
14	Implosion Simulation by Hydro Code Coupled with Laser Absorption using New Raytrace Algorithm. <i>Plasma and Fusion Research</i> , <b>2014</b> , 9, 3404090-3404090	0.5	
13	Energy Transportation by MeV Hot Electrons in Fast Ignition Plasma Driven with LFEX PW Laser. <i>Plasma and Fusion Research</i> , <b>2014</b> , 9, 1404118-1404118	0.5	
12	High-intensity laser-driven particle and electromagnetic wave sources for science, industry, and medicine. <i>Frontiers of Optoelectronics in China</i> , <b>2009</b> , 2, 299-303		
11	Ion Acceleration Using Temporally-Controlled High-Intensity Laser Pulses. <i>The Review of Laser Engineering</i> , <b>2009</b> , 37, 449-454	0	
10	Proton Generation and Terahertz Radiation from A Thin-Foil Target with A High-Intensity Laser. <i>The Review of Laser Engineering</i> , <b>2010</b> , 38, 702-705	0	
9	Relativistic Electron Fluid Simulation and Studies on Electric Shock Wave Formation. <i>Journal of the Physical Society of Japan</i> , <b>2007</b> , 76, 044502	1.5	
8	Preliminary Cryogenic Layering by the Infrared Heating Method Modified with Cone Temperature Control for the Polystyrene Shell FIREX Target. <i>Plasma and Fusion Research</i> , <b>2021</b> , 16, 1404099-1404099 <sup>0.5</sup>		

- 7 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
- 6 Integration of Individual Simulation Codes for Fast Ignition. *The Review of Laser Engineering*, **2004**, 32, 324-329 ○
- 5 High Intensity Laser Propagation through Overdense Plasmas. *The Review of Laser Engineering*, **2008**, 36, 1139-1141 ○
- 4 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 ○.5
- 3 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 ○.5
- 2 Characteristics of Laser-Driven Neutron Sources. *The Review of Laser Engineering*, **2018**, 46, 564 ○
- 1 Pulse duration constraint of whistler waves in magnetized dense plasma. *Physical Review E*, **2021**, 104, 035205 2.4