Mitsuru Honda

List of Publications by Year
in descending order

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76	933	471509	526287
papers	citations	17	27
		h-index	g-index

80	80	80	916
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Compact DEMO, SlimCS: design progress and issues. Nuclear Fusion, 2009, 49, 075029.	3.5	150
2	Comparison of turbulent transport models of L- and H-mode plasmas. Nuclear Fusion, 2006, 46, 580-593.	3.5	51
3	Integrated modelling of steady-state scenarios and heating and current drive mixes for ITER. Nuclear Fusion, 2011, 51, 103006.	3.5	44
4	Roles of argon seeding in energy confinement and pedestal structure in JT-60U. Nuclear Fusion, 2015, 55, 033010.	3.5	41
5	Physics comparison and modelling of the JET and JT-60U core and edge: towards JT-60SA predictions. Nuclear Fusion, 2014, 54, 093010.	3.5	39
6	Validation studies of gyrokinetic ITG and TEM turbulence simulations in a JT-60U tokamak using multiple flux matching. Nuclear Fusion, 2016, 56, 086010.	3.5	27
7	Collisionality dependence of a shielding factor of a beam driven current. Nuclear Fusion, 2012, 52, 023021.	3.5	25
8	Simulation technique of free-boundary equilibrium evolution in plasma ramp-up phase. Computer Physics Communications, 2010, 181, 1490-1500.	7.5	24
9	Development of the transport-code framework for self-consistent predictions of rotation and the radial electric field. Nuclear Fusion, 2013, 53, 073050.	3.5	24
10	Dynamic transport simulation code including plasma rotation and radial electric field. Journal of Computational Physics, 2008, 227, 2808-2844.	3.8	22
11	Impact of higher-order flows in the moment equations on Pfirsch-SchlÃ¼ter friction coefficients. Physics of Plasmas, 2014, 21, 092508.	1.9	20
12	Transport modelling of JT-60U and JET plasmas with internal transport barriers towards prediction of JT-60SA high-beta steady-state scenario. Nuclear Fusion, 2017, 57, 126037.	3.5	20
13	Self-consistent simulation of torque generation by radial current due to fast particles. Nuclear Fusion, 2009, 49, 035009.	3.5	19
14	Alpha particle-driven toroidal rotation in burning plasmas. Nuclear Fusion, 2011, 51, 073018.	3.5	18
15	Current ramps in tokamaks: from present experiments to ITER scenarios. Nuclear Fusion, 2011, 51, 083026.	3.5	18
16	Advances in the physics studies for the JT-60SA tokamak exploitation and research plan. Plasma Physics and Controlled Fusion, 2020, 62, 014009.	2.1	18
17	Numerical analysis of the effect of fast-ion losses on plasma rotation in a tokamak with toroidal field ripple. Nuclear Fusion, 2008, 48, 085003.	3.5	17
18	Experimental analyses and predictive simulations of toroidal rotation driven by the neoclassical toroidal viscosity in rippled tokamaks. Nuclear Fusion, 2014, 54, 114005.	3.5	17

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19	Analysis of ELM stability with extended MHD models in JET, JT-60U and future JT-60SA tokamak plasmas. Plasma Physics and Controlled Fusion, 2018, 60, 014032.	2.1	17
20	Effects of toroidal rotation shear and magnetic shear on thermal and particle transport in plasmas with electron cyclotron heating on JT-60U. Nuclear Fusion, 2015, 55, 073014.	3.5	15
21	Core and edge toroidal rotation study in JT-60U. Nuclear Fusion, 2012, 52, 023024.	3.5	14
22	Boundary condition for toroidal plasma flow imposed at the separatrix in high confinement JT-60U plasmas with edge localized modes and the physics process in pedestal structure formation. Physics of Plasmas, 2014, 21, .	1.9	13
23	Application of genetic algorithms to modelings of fusion plasma physics. Computer Physics Communications, 2018, 231, 94-106.	7.5	13
24	Impact of ion diamagnetic drift on MHD stability at edge pedestal in JT-60U rotating plasmas. Nuclear Fusion, 2017, 57, 022011.	3.5	12
25	Numerical analysis of ELM stability with rotation and ion diamagnetic drift effects in JET. Nuclear Fusion, 2017, 57, 126001.	3.5	11
26	Neural-network-based semi-empirical turbulent particle transport modelling founded on gyrokinetic analyses of JT-60U plasmas. Nuclear Fusion, 2019, 59, 106018.	3.5	11
27	Machine-learning assisted steady-state profile predictions using global optimization techniques. Physics of Plasmas, 2019, 26, .	1.9	11
28	Modifications to the edge radial electric field by angular momentum injection in JT-60U and their implication for pedestal transport. Nuclear Fusion, 2012, 52, 114010.	3.5	10
29	Estimation of orbit island width from static magnetic island width, using safety factor and orbit pitch. Nuclear Fusion, 2018, 58, 082026.	3.5	10
30	Coulomb Logarithm Formulae for Collisions between Species with Different Temperatures. Japanese Journal of Applied Physics, 2013, 52, 108002.	1.5	9
31	Development of a novel integrated model GOTRESS+ for predictions and assessment of JT-60SA operation scenarios including the pedestal. Nuclear Fusion, 0, , .	3.5	9
32	Simulation Study of L/H Transition with Selfâ€Consistent Integrated Modelling of Core and SOL/Divertor Transport. Contributions To Plasma Physics, 2012, 52, 372-378.	1.1	8
33	Temporal and spatial responses of temperature, density and rotation to electron cyclotron heating in JT-60U. Nuclear Fusion, 2013, 53, 083022.	3.5	8
34	Integrated modelling of toroidal rotation with the 3D non-local drift-kinetic code and boundary models for JT-60U analyses and predictive simulations. Nuclear Fusion, 2015, 55, 073033.	3.5	8
35	Predictive modelling of JT-60SA high-beta steady-state plasma with impurity accumulation. Nuclear Fusion, 2018, 58, 066001.	3.5	8
36	Resistive wall mode physics and control challenges in JT-60SA high eta_N scenarios. Nuclear Fusion, 2019, 59, 106028.	3.5	8

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37	Edge Radial Electric Field Formation after the Lâ€H Transition on JTâ€60U. Contributions To Plasma Physics, 2014, 54, 591-598.	1.1	7
38	Impact of hot particles on resistive wall mode stability in rotating high-beta plasmas. Nuclear Fusion, 2017, 57, 126051.	3.5	7
39	MHD stability of JT-60SA operation scenarios driven by passing energetic particles for a hot Maxwellian model. Nuclear Fusion, 2020, 60, 096009.	3.5	7
40	Quasilinear turbulent particle and heat transport modelling with a neural-network-based approach founded on gyrokinetic calculations and experimental data. Nuclear Fusion, 2021, 61, 116041.	3.5	7
41	Dynamics of enhanced neoclassical particle transport of tracer impurity ions in ion temperature gradient driven turbulence. Physics of Plasmas, 2021, 28, 012501.	1.9	7
42	Integrated Modeling of Whole Tokamak Plasma. Plasma and Fusion Research, 2011, 6, 2403065-2403065.	0.7	6
43	On the Neoclassical Relationship between the Radial Electric Field and Radial Current in Tokamak Plasmas. Journal of the Physical Society of Japan, 2011, 80, 114502.	1.6	6
44	Predictions of toroidal rotation and torque sources arising in non-axisymmetric perturbed magnetic fields in tokamaks. Nuclear Fusion, 2017, 57, 116050.	3.5	6
45	Gyrokinetic modelling of the quasilinear particle flux for plasmas with neutral-beam fuelling. Plasma Physics and Controlled Fusion, 2018, 60, 025027.	2.1	6
46	Unveiling the structure and dynamics of peeling mode in quiescent high-confinement tokamak plasmas. Communications Physics, 2021, 4, .	5.3	6
47	Impact of rotation and ion diamagnetic drift on MHD stability at edge pedestal in quiescent H-mode plasmas. Nuclear Fusion, 2020, 60, 092005.	3.5	6
48	Plasma physics and control studies planned in JT-60SA for ITER and DEMO operations and risk mitigation. Plasma Physics and Controlled Fusion, 2022, 64, 054004.	2.1	6
49	Development of the fluid-type transport code on the flux coordinates in a tokamak. Computer Physics Communications, 2016, 208, 117-134.	7.5	5
50	Development of a Surrogate Turbulent Transport Model and Its Usefulness in Transport Simulations. Plasma and Fusion Research, 2021, 16, 2403002-2403002.	0.7	5
51	Modelling of anomalous particle transport for dynamic transport simulations. Nuclear Fusion, 2010, 50, 095012.	3.5	4
52	Effects of local toroidal field ripples due to test blanket modules for ITER on radial transport of thermal ions. Nuclear Fusion, 2012, 52, 114013.	3.5	4
53	Integrated tokamak modelling with the fast-ion Fokkerâ€“Planck solver adapted for transient analyses. Plasma Physics and Controlled Fusion, 2015, 57, 095007.	2.1	4
54	Effects of the radial electric field on the confinement of fast ions in ITER. Nuclear Fusion, 2015, 55, 053010.	3.5	4

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55	Non-Resonant n = 1 Helical Core Induced by m/n = 2/1 Neoclassical Tearing Mode in JT-60U. Plasma and Fusion Research, 2021, 16, 1402030-1402030.	0.7	4
56	Effect of m/n = 2/1 neoclassical tearing mode on sawtooth collapse in JT-60U. Plasma Physics and Controlled Fusion, 2021, 63, 085009.	2.1	4
57	Gyrokinetic Analyses of Core Heat Transport in JT-60U Plasmas with Different Toroidal Rotation Direction. Plasma and Fusion Research, 2015, 10, 1403019-1403019.	0.7	3
58	Effects of the applied magnetic fields with various toroidal phase differences on the neoclassical toroidal viscosity in JT-60SA. Nuclear Fusion, 2018, 58, 112012.	3.5	3
59	Efficient estimation of drift orbit island width for passing ions in a shaped tokamak plasma with a static magnetic perturbation. Nuclear Fusion, 2020, 60, 096032.	3.5	3
60	Neoclassical Transport Modeling Compatible with a Two-Fluid Transport Equation System. Plasma and Fusion Research, 2011, 6, 1403008-1403008.	0.7	3
61	Effects of toroidal rotation on electron heat transport via changes in inertial force and impurity density. Plasma Physics and Controlled Fusion, 2017, 59, 044012.	2.1	2
62	Dynamics of weak-magnetic-shear-sustained internal transport barrier during supersonic molecular-beam injection in JT-60U. Nuclear Fusion, 2021, 61, 026017.	3.5	2
63	Spatio-temporal evolutions of ion heat flux and radial electric field during internal transport barrier formation on JT-60U. Plasma Physics and Controlled Fusion, 2021, 63, 035030.	2.1	2
64	Application of transient transport analysis method for modulation experiment. AIP Advances, 2021, 11, 085306.	1.3	2
65	Plasma Domains and Development of Operation Scenarios in JT-60SA. Plasma and Fusion Research, 2012, 7, 2403131-2403131.	0.7	2
66	Stabilization of kink/peeling modes by coupled rotation and ion diamagnetic drift effects in QH-mode plasmas in DIII-D and JT-60U. Nuclear Fusion, 0, , .	3.5	2
67	Nonlinear functional relation covering near- and far-marginal stability in ion temperature gradient driven turbulence. Plasma Physics and Controlled Fusion, 2022, 64, 075007.	2.1	2
68	Toward efficient runs of nonlinear gyrokinetic simulations assisted by a convolutional neural network model recognizing wavenumber-space images. Nuclear Fusion, 2022, 62, 086037.	3.5	2
69	Multiple plasma transport states in the H-mode transition on JT-60U. Nuclear Fusion, 2019, 59, 086046.	3.5	1
70	Scaling study for positive magnetic shear ELMy H-mode plasmas in JT-60U. Plasma Physics and Controlled Fusion, 2019, 61, 125011.	2.1	1
71	Analysis of T_e/T_i Effect on Confinement Properties. Plasma and Fusion Research, 2012, 7, 2403102-2403102.	0.7	1
72	Turbulence Analyses of Improved Electron Energy Confinement in H-Mode Plasmas with Gyrokinetic Calculations. Plasma and Fusion Research, 2013, 8, 1403082-1403082.	0.7	1

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73	Particle Pinch Model of Passing/Trapped High-Z Impurity with Centrifugal Force Effect. Plasma and Fusion Research, 2016, 11, 2403082-2403082.	0.7	0
74	Volt-second balance with the toroidal magnetic flux based on Poyntingâ€™s theorem in tokamaks. Nuclear Fusion, 2018, 58, 026006.	3.5	0
75	Torque to counter-current direction driving low frequency tearing modes in JT-60U. Plasma Physics and Controlled Fusion, 2021, 63, 115005.	2.1	0
76	Transport Simulation of Helical Plasmas Using the TASK/TX Code. Plasma and Fusion Research, 2010, 5, S2040-S2040.	0.7	0