Yasushi Todo

List of Publications by Year in descending order

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117 papers	2,898 citations	172457 29 h-index	182427 51 g-index
117 all docs	117 docs citations	117 times ranked	1431 citing authors

#	Article	IF	Citations
1	Overview of coordinated spherical tokamak research in Japan. Nuclear Fusion, 2022, 62, 042011.	3.5	5
2	Simulation study of energetic-particle driven off-axis fishbone instabilities in tokamak plasmas. Nuclear Fusion, 2022, 62, 026013.	3.5	1
3	Simulation of convective transport during frequency chirping of a TAE using the MEGA code. Nuclear Fusion, 2022, 62, 036025.	3.5	1
4	Challenges of ab initio simulations to physics of burning plasma confinement. Atomos, 2022, 64, 152-156.	0.0	0
5	Prediction of the energetic particle redistribution by an improved critical gradient model and analysis of the transport threshold. Physics of Plasmas, 2022, 29, 032304.	1.9	3
6	ATEQ: Adaptive toroidal equilibrium code. Physics of Plasmas, 2022, 29, 072503.	1.9	0
7	The three-dimensional equilibrium with magnetic islands and MHD instabilities in the CFQS quasi-axisymmetric stellarator. Nuclear Fusion, 2021, 61, 036021.	3.5	12
8	Implementation of synthetic fast-ion loss detector and imaging heavy ion beam probe diagnostics in the 3D hybrid kinetic-MHD code MEGA. Review of Scientific Instruments, 2021, 92, 043558.	1.3	2
9	Beam modulation and bump-on-tail effects on AlfvÃ©n eigenmode stability in DIII-D. Nuclear Fusion, 2021, 61, 066028.	3.5	10
10	Magnetohydrodynamic hybrid simulation model with kinetic thermal ions and energetic particles. Plasma Physics and Controlled Fusion, 2021, 63, 075018.	2.1	9
11	Precession drift reversal and rapid transport of trapped energetic particles due to an energetic particle driven instability in the Large Helical Device. Physics of Plasmas, 2021, 28, 080701.	1.9	3
12	Numerical investigation into the peripheral energetic-particle-driven MHD modes in Heliotron J with free boundary hybrid simulation. Nuclear Fusion, 2021, 61, 116065.	3.5	4
13	Nonlinear simulations of energetic particle-driven instabilities interacting with AlfvÃ©n continuum during frequency chirping. Plasma Physics and Controlled Fusion, 2021, 63, 015004.	2.1	8
14	Non-resonant global mode in LHD partial collapse with net toroidal current. Nuclear Fusion, 2021, 61, 126056.	3.5	2
15	Visualization of Fast Ion Phase-Space Flow Driven by AlfvÃ©n Instabilities. Physical Review Letters, 2021, 127, 235002.	7.8	5
16	Magnetohydrodynamic hybrid simulation of AlfvÃ©n eigenmodes in Heliotron J, a low shear helical axis stellarator/heliotron. Nuclear Fusion, 2020, 60, 096005.	3.5	5
17	Ion kinetic effects on linear pressure driven magnetohydrodynamic instabilities in helical plasmas. Journal of Plasma Physics, 2020, 86, .	2.1	8
18	Simulation of AlfvÃ©n eigenmodes destabilized by energetic electrons in tokamak plasmas. Nuclear Fusion, 2020, 60, 112012.	3.5	19

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19	Summary of the 16th IAEA technical meeting on energetic particles in magnetic confinement systemsâ€"theory of plasma instabilities. Nuclear Fusion, 2020, 60, 117001.	3.5	0
20	Hybrid simulation of NBI fast-ion losses due to the AlfvÃ©n eigenmode bursts in the Large Helical Device and the comparison with the fast-ion loss detector measurements. Journal of Plasma Physics, 2020, 86, .	2.1	3
21	The systematic investigation of energetic-particle-driven geodesic acoustic mode channeling using MEGA code. Nuclear Fusion, 2020, 60, 112007.	3.5	4
22	Stabilization of energetic-ion driven toroidal AlfvÃ©n eigenmode by energetic electrons in tokamak plasmas. Nuclear Fusion, 2020, 60, 106004.	3.5	7
23	Editorial: 16th IAEA Technical Meeting on Energetic Particles in Magnetic Confinement Systemsâ€"Theory of Plasma Instabilities. Nuclear Fusion, 2020, 60, 110401.	3.5	0
24	Study of Alfven eigenmodes stability in plasma with multiple NBI driven energetic particle species. Physics of Plasmas, 2019, 26, 062502.	1.9	10
25	Effect of precession drift motion of trapped thermal ions on ballooning modes in helical plasmas. Nuclear Fusion, 2019, 59, 094003.	3.5	10
26	Critical energetic particle distribution in phase space for the AlfvÃ©n eigenmode burst with global resonance overlap. Nuclear Fusion, 2019, 59, 096048.	3.5	4
27	Comprehensive magnetohydrodynamic hybrid simulations of AlfvÃ©n eigenmode bursts and fast-ion losses in the Large Helical Device. Nuclear Fusion, 2019, 59, 096018.	3.5	11
28	Simulation of energetic particle driven geodesic acoustic modes and the energy channeling in the Large Helical Device plasmas. Nuclear Fusion, 2019, 59, 096041.	3.5	15
29	Active control of AlfvÃ©n eigenmodes in magnetically confined toroidal plasmas. Plasma Physics and Controlled Fusion, 2019, 61, 054007.	2.1	37
30	Verification and validation of integrated simulation of energetic particles in fusion plasmas. Nuclear Fusion, 2019, 59, 066006.	3.5	40
31	Introduction to the interaction between energetic particles and Alfven eigenmodes in toroidal plasmas. Reviews of Modern Plasma Physics, 2019, 3, 1.	4.1	67
32	Effects of fast ions on interchange modes in the Large Helical Device plasmas. Plasma Physics and Controlled Fusion, 2018, 60, 075007.	2.1	2
33	Chirping and Sudden Excitation of Energetic-Particle-Driven Geodesic Acoustic Modes in a Large Helical Device Experiment. Physical Review Letters, 2018, 120, 175001.	7.8	30
34	Benchmark of gyrokinetic, kinetic MHD and gyrofluid codes for the linear calculation of fast particle driven TAE dynamics. Nuclear Fusion, 2018, 58, 126027.	3.5	40
35	Simulations of toroidal AlfvÃ©n eigenmode excited by fast ions on the Experimental Advanced Superconducting Tokamak. Physics of Plasmas, 2018, 25, 052503.	1.9	3
36	Simulations tackle abrupt massive migrations of energetic beam ions in a tokamak plasma. Nature Communications, 2018, 9, 3282.	12.8	42

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37	A simulation environment to simulate lower-hybrid-wave-driven plasmas efficiently. Computer Physics Communications, 2018, 230, 38-49.	7.5	2
38	Fusion Research and International Collaboration in the Asian Region. Plasma and Fusion Research, 2018, 13, 3502046-3502046.	0.7	3
39	Global linear gyrokinetic simulation of energetic particle-driven instabilities in the LHD stellarator. Nuclear Fusion, 2017, 57, 086018.	3.5	16
40	Kinetic-MHD hybrid simulation of fishbone modes excited by fast ions on the experimental advanced superconducting tokamak (EAST). Physics of Plasmas, 2017, 24, .	1.9	14
41	Self-consistent long-time simulation of chirping and beating energetic particle modes in JT-60U plasmas. Nuclear Fusion, 2017, 57, 016036.	3.5	19
42	Characteristics of MHD instabilities for high beta plasmas in inward shifted LHD configurations. Nuclear Fusion, 2017, 57, 126023.	3.5	9
43	Comprehensive magnetohydrodynamic hybrid simulations of fast ion driven instabilities in a Large Helical Device experiment. Physics of Plasmas, 2017, 24, .	1.9	28
44	Benchmark of multi-phase method for the computation of fast ion distributions in a tokamak plasma in the presence of low-amplitude resonant MHD activity. Computer Physics Communications, 2017, 220, 279-284.	7.5	5
45	Extension of the operational regime of the LHD towards a deuterium experiment. Nuclear Fusion, 2017, 57, 102023.	3.5	116
46	Fast ion profile stiffness due to the resonance overlap of multiple AlfvÃ©n eigenmodes. Nuclear Fusion, 2016, 56, 112008.	3.5	38
47	Multi-phase hybrid simulation of energetic particle driven magnetohydrodynamic instabilities in tokamak plasmas. New Journal of Physics, 2016, 18, 115005.	2.9	17
48	Sensitivity study for N-NB-driven modes in JT-60U: boundary, diffusion, gyroaverage, compressibility. Nuclear Fusion, 2016, 56, 106009.	3.5	15
49	Simulation of fast-ion-driven AlfvÃ©n eigenmodes on the Experimental Advanced Superconducting Tokamak. Physics of Plasmas, 2016, 23, 022505.	1.9	9
50	Three-Dimensional Numerical Analysis of Shear Flow Effects on MHD Stability in LHD Plasmas. Plasma and Fusion Research, 2016, 11, 2403035-2403035.	0.7	2
51	Simulation study of high-frequency energetic particle driven geodesic acoustic mode. Physics of Plasmas, 2015, 22, .	1.9	28
52	APTWG: The 4th Asia-Pacific Transport Working Group Meeting. Nuclear Fusion, 2015, 55, 017001.	3.5	5
53	Validation of comprehensive magnetohydrodynamic hybrid simulations for AlfvÃ©n eigenmode induced energetic particle transport in DIII-D plasmas. Nuclear Fusion, 2015, 55, 073020.	3.5	43
54	Three-dimensional MHD analysis of heliotron plasma with RMP. Nuclear Fusion, 2015, 55, 073023.	3.5	5

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55	Flow damping due to stochastization of the magnetic field. Nature Communications, 2015, 6, 5816.	12.8	28
56	Overview of transport and MHD stability study: focusing on the impact of magnetic field topology in the Large Helical Device. Nuclear Fusion, 2015, 55, 104018.	3.5	10
57	Dynamics of low-nshear AlfvÃ©n modes driven by energetic N-NB ions in JT-60U. Nuclear Fusion, 2014, 54, 104001.	3.5	19
58	Multi-phase simulation of fast ion profile flattening due to AlfvÃ©n eigenmodes in a DIII-D experiment. Nuclear Fusion, 2014, 54, 104012.	3.5	45
59	Three-Dimensional Numerical Analysis of Pressure Driven Mode in RMP-Imposed LHD Plasma. Plasma and Fusion Research, 2014, 9, 3403134-3403134.	0.7	2
60	Large-Scale Simulation of Energetic Particle Driven Magnetohydrodynamic Instabilities in ITER Plasmas. Plasma and Fusion Research, 2014, 9, 3403068-3403068.	0.7	25
61	Hole-Clump Pair Creation in the Evolution of Energetic-Particle-Driven Geodesic Acoustic Modes. Physical Review Letters, 2013, 110, 155006.	7.8	43
62	Linear properties of energetic particle driven geodesic acoustic mode. Physics of Plasmas, 2013, 20, 012506.	1.9	21
63	Role of convective amplification ofn= 1 energetic particle modes for N-NB ion dynamics in JT-60U. Nuclear Fusion, 2013, 53, 073007.	3.5	18
64	Extension of operation regimes and investigation of three-dimensional currentless plasmas in the Large Helical Device. Nuclear Fusion, 2013, 53, 104015.	3.5	35
65	Energetic particle instabilities in fusion plasmas. Nuclear Fusion, 2013, 53, 104022.	3.5	79
66	Simulation Study of AlfvÃ©n-Eigenmode-Induced Energetic Ion Transport in LHD. Plasma and Fusion Research, 2013, 8, 2403090-2403090.	0.7	5
67	Analysis Method for the Low-Order Resistive Interchange Instability in LHD with Stochastic Magnetic Field Line Structure. Plasma and Fusion Research, 2013, 8, 2403157-2403157.	0.7	2
68	Nonlinear Simulation of Energetic Particle Modes in High-Beta Tokamak Plasma. Plasma and Fusion Research, 2013, 7, 2403081-2403081.	0.7	7
69	Simulation of AlfvÃ©n eigenmode bursts using a hybrid code for nonlinear magnetohydrodynamics and energetic particles. Nuclear Fusion, 2012, 52, 033003.	3.5	17
70	Saturation of a toroidal AlfvÃ©n eigenmode due to enhanced damping of nonlinear sidebands. Nuclear Fusion, 2012, 52, 094018.	3.5	16
71	Nonlinear simulations of Alfvèn eigenmodes destabilized by energetic particles. AIP Conference Proceedings, 2012, , .	0.4	7
72	Interaction between Energetic Particles and AlfvÃ©n Eigenmodes in Reversed Shear Plasmas. Journal of the Physical Society of Japan, 2011, 80, 094501.	1.6	5

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73	Energetic-ion-driven global instabilities in stellarator/helical plasmas and comparison with tokamak plasmas. Plasma Physics and Controlled Fusion, 2011, 53, 024008.	2.1	46
74	Nonlinear Hybrid Simulations of Energetic Particle Modes in Realistic Tokamak Flux Surface Geometry. Plasma and Fusion Research, 2011, 6, 2403109-2403109.	0.7	8
75	MHD Modes Destabilized by Energetic Ions on LHD. Fusion Science and Technology, 2010, 58, 186-193.	1.1	8
76	Numerical Analyses of Energetic Particles in LHD. Fusion Science and Technology, 2010, 58, 277-288.	1.1	7
77	Overview of Studies on Energeticâ€Ionâ€Driven MHD Instabiities in Stellarator/Helical Plasmas and Comparison with Tokamaks. Contributions To Plasma Physics, 2010, 50, 493-500.	1.1	4
78	Energeticâ€Particleâ€Driven Instabilities in General Toroidal Configurations. Contributions To Plasma Physics, 2010, 50, 708-712.	1.1	16
79	Nonlinear magnetohydrodynamic effects on AlfvÃ©n eigenmode evolution and zonal flow generation. Nuclear Fusion, 2010, 50, 084016.	3.5	87
80	Clustered frequency analysis of shear AlfvÃ©n modes in stellarators. Physics of Plasmas, 2010, 17, .	1.9	41
81	Observation of Reversed-Shear AlfvÃ©n Eigenmodes Excited by Energetic Ions in a Helical Plasma. Physical Review Letters, 2010, 105, 145003.	7.8	44
82	Simulation Study of Ballooning Modes in the Large Helical Device. Plasma and Fusion Research, 2010, 5, S2062-S2062.	0.7	25
83	Development of net-current free heliotron plasmas in the Large Helical Device. Nuclear Fusion, 2009, 49, 104015.	3.5	54
84	Local observations of fast ion responses to energetic particle modes using a directional probe in the Compact Helical System (CHS). Nuclear Fusion, 2008, 48, 084005.	3.5	1
85	Radial Transport Characteristics of Fast Ions Due to Energetic-Particle Modes inside the Last Closed-Flux Surface in the Compact Helical System. Physical Review Letters, 2008, 100, 065005.	7.8	33
86	Simulation science for fusion plasmas. Journal of Physics: Conference Series, 2008, 133, 012025.	0.4	1
87	Simulation Study of Energetic Ion Transport due to AlfvÃ©n Eigenmodes in LHD Plasma. Plasma and Fusion Research, 2008, 3, S1074-S1074.	0.7	8
88	Chapter 5: Physics of energetic ions. Nuclear Fusion, 2007, 47, S264-S284.	3.5	478
89	Simulations of AlfvÃ©n eigenmodes with an extended Ohm's law. Journal of Plasma Physics, 2006, 72, 817.	2.1	7
90	Properties of energetic-particle continuum modes destabilized by energetic ions with beam-like velocity distributions. Physics of Plasmas, 2006, 13, 082503.	1.9	64

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91	Energetic ion transport by abrupt large-amplitude event induced by negative-ion-based neutral beam injection in the JT-60U. Nuclear Fusion, 2005, 45, 1474-1480.	3.5	44
92	Nonlocal energetic particle mode in a JT-60U plasma. Physics of Plasmas, 2005, 12, 012503.	1.9	57
93	Instability in the Frequency Range of Alfvén Eigenmodes Driven by Negative-Ion-Based Neutral Beams in JT-60U. Journal of Plasma and Fusion Research, 2005, 81, 547-552.	0.4	1
94	Energetic particle physics in JT-60U and JFT-2M. Plasma Physics and Controlled Fusion, 2004, 46, S31-S45.	2.1	44
95	Simulation of intermittent beam ion loss in a Tokamak Fusion Test Reactor experiment. Physics of Plasmas, 2003, 10, 2888-2902.	1.9	58
96	Inductance of rf-Wave-Heated Plasmas. Physical Review Letters, 2003, 90, 105003.	7.8	1
97	Computer Simulation of Frequency Sweeping of Energetic Particle Mode in a JT-60U Experiment. Journal of Plasma and Fusion Research, 2003, 79, 1107-1108.	0.4	16
98	Fokker-Planck simulation study of AlfvÃ©n eigenmode bursts. Nuclear Fusion, 2001, 41, 1153-1159.	3.5	15
99	Structural Transitions in an Open Non-Equilibrium System. Progress of Theoretical Physics Supplement, 2000, 138, 657-664.	0.1	2
100	Non-linear simulations of internal reconnection events in spherical tokamaks. Nuclear Fusion, 2000, 40, 721-726.	3.5	14
101	Open boundary particle simulation of electrostatic ion cyclotron instability. Journal of Plasma Physics, 1999, 61, 407-414.	2.1	2
102	Alfven Eigenmodes in Toroidal Magnetic Confinemen. Nonlinear Simulation Study of Alfven Eigenmodes.. Journal of Plasma and Fusion Research, 1999, 75, 567-571.	0.4	0
103	A Particle Algorithm for Linear Kinetic Analysis in Tokamak Plasmas. Journal of Computational Physics, 1998, 141, 37-45.	3.8	0
104	Linear and nonlinear particle-magnetohydrodynamic simulations of the toroidal AlfvÃ©n eigenmode. Physics of Plasmas, 1998, 5, 1321-1327.	1.9	136
105	Formation of wave-front pattern accompanied by current-driven electrostatic ion-cyclotron instabilities. Physics of Plasmas, 1997, 4, 2886-2892.	1.9	8
106	A Self-Consistent Open Boundary Model for Particle Simulation in Plasmas. Journal of the Physical Society of Japan, 1997, 66, 3826-3830.	1.6	8
107	Impulsive Nature in Magnetohydrodynamic Driven Reconnection. Journal of the Physical Society of Japan, 1996, 65, 3208-3214.	1.6	11
108	Implementation of an Electrostatic Implicit Particle Simulation Scheme. Journal of Computational Physics, 1996, 127, 473-481.	3.8	1

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109	Electromagnetic instability and anomalous resistivity in a magnetic neutral sheet. Physics of Plasmas, 1996, 3, 2265-2274.	1.9	72
110	Complexity in plasma: From selfâ€organization to geodynamo. Physics of Plasmas, 1996, 3, 2135-2142.	1.9	26
111	Selfâ€organization process of a magnetohydrodynamic plasma in the presence of thermal conduction. Physics of Plasmas, 1996, 3, 2821-2823.	1.9	4
112	Computer simulation of a magnetohydrodynamic dynamo. II. Physics of Plasmas, 1995, 2, 1421-1431.	1.9	134
113	Magnetohydrodynamic Vlasov simulation of the toroidal AlfvÃ©n eigenmode. Physics of Plasmas, 1995, 2, 2711-2716.	1.9	69
114	Kinetic selfâ€organization: Creation of super ion acoustic double layer. Physics of Plasmas, 1995, 2, 3609-3613.	1.9	16
115	Wiggled structure of Herbig-Haro objects - Helical kink instability of jets from young stellar objects. Astrophysical Journal, 1993, 403, 164.	4.5	44
116	Kinetic thermal ion effects on maintaining high beta plasmas above the Mercier criterion in the Large Helical Device. Nuclear Fusion, 0, , .	3.5	1
117	Modelling the AlfvÃ©n eigenmode induced fast-ion flow measured by an imaging neutral particle analyzer. Nuclear Fusion, 0, , .	3.5	2