

Zensho Yoshida

List of Publications by Year in descending order

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87
papers

1,016
citations

567281

15
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454955

30
g-index

90
all docs

90
docs citations

90
times ranked

440
citing authors

#	ARTICLE	IF	CITATIONS
1	Remarks on spectra of operator rot. <i>Mathematische Zeitschrift</i> , 1990, 204, 235-245.	0.9	191
2	Variational Principles and Self-Organization in Two-Fluid Plasmas. <i>Physical Review Letters</i> , 2002, 88, 095001.	7.8	132
3	Magnetospheric Vortex Formation: Self-Organized Confinement of Charged Particles. <i>Physical Review Letters</i> , 2010, 104, 235004.	7.8	60
4	First Plasma in the RT-1 Device. <i>Plasma and Fusion Research</i> , 2006, 1, 008-008.	0.7	48
5	Clebsch parameterization: Basic properties and remarks on its applications. <i>Journal of Mathematical Physics</i> , 2009, 50, .	1.1	42
6	Self-organized confinement by magnetic dipole: recent results from RT-1 and theoretical modeling. <i>Plasma Physics and Controlled Fusion</i> , 2013, 55, 014018.	2.1	38
7	Twisting Space-Time: Relativistic Origin of Seed Magnetic Field and Vorticity. <i>Physical Review Letters</i> , 2010, 105, 095005.	7.8	28
8	Improved beta (local beta > 1) and density in electron cyclotron resonance heating on the RT-1 magnetosphere plasma. <i>Nuclear Fusion</i> , 2015, 55, 053019.	3.5	28
9	Statistical mechanics of magnetohydrodynamics. <i>Physical Review E</i> , 1996, 53, 5200-5206.	2.1	23
10	Self-organization in foliated phase space: Construction of a scale hierarchy by adiabatic invariants of magnetized particles. <i>Progress of Theoretical and Experimental Physics</i> , 2014, 2014, .	6.6	23
11	Remarks on Relaxation Phenomena in Toroidal Discharge. <i>Journal of the Physical Society of Japan</i> , 1986, 55, 450-453.	1.6	21
12	A theory for the pressure pedestal in high (H) mode tokamak discharges. <i>Physics of Plasmas</i> , 2005, 12, 032502.	1.9	20
13	Confinement of electron plasma by levitating dipole magnet. <i>Physics of Plasmas</i> , 2010, 17, 112111.	1.9	20
14	Relativistic helicity and link in Minkowski space-time. <i>Journal of Mathematical Physics</i> , 2014, 55, .	1.1	18
15	Observation of particle acceleration in laboratory magnetosphere. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	17
16	Probing of flowing electron plasmas. <i>Physics of Plasmas</i> , 2001, 8, 4651-4658.	1.9	15
17	Filament size of floating-emissive probe for low density plasmas with large space potential. <i>Review of Scientific Instruments</i> , 2003, 74, 4658-4662.	1.3	13
18	A hierarchy of noncanonical Hamiltonian systems: circulation laws in an extended phase space. <i>Fluid Dynamics Research</i> , 2014, 46, 031412.	1.3	13

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19	Rattleback: A model of how geometric singularity induces dynamic chirality. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2772-2777.	2.1	13
20	Helicity waves propagating in a plasma. Journal of Plasma Physics, 1991, 45, 481-488.	2.1	12
21	Observation of a new high- β^2 and high-density state of a magnetospheric plasma in RT-1. Physics of Plasmas, 2014, 21, .	1.9	12
22	Epi-Two-Dimensional Fluid Flow: A New Topological Paradigm for Dimensionality. Physical Review Letters, 2017, 119, 244501.	7.8	12
23	Diffusion with finite-helicity field tensor: A mechanism of generating heterogeneity. Physical Review E, 2018, 97, 022145.	2.1	12
24	Experimental analysis of self-organized structure and transport on the magnetospheric plasma device RT-1. Nuclear Fusion, 2019, 59, 096005.	3.5	12
25	Self-organization, anomalous resistance and anomalous heating in magnetized plasmas. Journal of Plasma Physics, 1998, 59, 103-123.	2.1	10
26	Measurement of a density profile of a hot-electron plasma in RT-1 with three-chord interferometry. Physics of Plasmas, 2015, 22, .	1.9	10
27	Self-organization by topological constraints: hierarchy of foliated phase space. Advances in Physics: X, 2016, 1, 2-19.	4.1	10
28	Gauge symmetries and Noether charges in Clebsch-parameterized magnetohydrodynamics. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 495501.	2.1	9
29	Ion cyclotron resonance heating system in the RT-1 magnetospheric plasma. Nuclear Fusion, 2017, 57, 086038.	3.5	9
30	A self-consistent equilibrium model of plasma-beam systems. Physics of Fluids B, 1989, 1, 1702-1708.	1.7	8
31	A remark on the Hamiltonian form of the magnetic-field-line equations. Physics of Plasmas, 1994, 1, 208-209.	1.9	8
32	Quantum spirals. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 055501.	2.1	8
33	Formation of high- β^2 plasma and stable confinement of toroidal electron plasma in Ring Trap 1. Physics of Plasmas, 2011, 18, 056102.	1.9	7
34	Duality of the Lagrangian and Eulerian representations of collective motion—a connection built around vorticity. Plasma Physics and Controlled Fusion, 2012, 54, 014003.	2.1	7
35	Hierarchical structure of noncanonical Hamiltonian systems. Physica Scripta, 2016, 91, 024001.	2.5	7
36	Inward diffusion driven by low frequency fluctuations in self-organizing magnetospheric plasma. Nuclear Fusion, 2022, 62, 026041.	3.5	7

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37	Weak solutions of a quasistatic model of plasmas. <i>Journal of Mathematical Physics</i> , 1984, 25, 1771-1775.	1.1	6
38	PERTURBATION THEORY FOR THE ALFVÉN WAVE. <i>International Journal of Modern Physics B</i> , 1995, 09, 2857-2898.	2.0	6
39	Deformation of Lie-Poisson algebras and chirality. <i>Journal of Mathematical Physics</i> , 2020, 61, 082901.	1.1	6
40	Improvement of Field Accuracy and Plasma Performance in the RT-1 Device. <i>Plasma and Fusion Research</i> , 2009, 4, 039-039.	0.7	6
41	Measurement of the Density Profile of a Toroidal Non-neutral Plasma with a Wall-Probe Array. <i>Plasma and Fusion Research</i> , 2009, 4, 054-054.	0.7	6
42	High-Current Runaway Electron Beam in a Tokamak Plasma. <i>Journal of the Physical Society of Japan</i> , 1991, 60, 1237-1246.	1.6	5
43	Coherence-imaging spectroscopy for 2D distribution of ion temperature and flow velocity in a laboratory magnetosphere. <i>Review of Scientific Instruments</i> , 2018, 89, 10D133.	1.3	5
44	3D code for calculation of iron-core field in fusion devices. <i>Journal of Applied Physics</i> , 1986, 59, 2277-2282.	2.5	4
45	A reduced model of chaotic magnetic fluctuations in a tokamak plasma. <i>Journal of Plasma Physics</i> , 1993, 49, 403.	2.1	4
46	Tomographic Reconstruction of Imaging Diagnostics with a Generative Adversarial Network. <i>Plasma and Fusion Research</i> , 2019, 14, 1202117-1202117.	0.7	4
47	Long-Lived Pure Electron Plasma in Ring Trap-1. <i>Plasma and Fusion Research</i> , 2007, 2, 045-045.	0.7	4
48	Thermo-magneto coupling in a dipole plasma. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	3
49	Stable confinement of electron plasma and initial results on positron injection in RT-1. <i>AIP Conference Proceedings</i> , 2013, , .	0.4	3
50	Asymmetric Perturbations of Toroidal Flux in Ramped-Up Discharges on Repute-1 Reversed Field Pinch. <i>Journal of the Physical Society of Japan</i> , 1989, 58, 24-27.	1.6	3
51	Development of a beam probing system for measurement of density, temperature, and magnetic field of RFP plasma. <i>Review of Scientific Instruments</i> , 1987, 58, 530-535.	1.3	2
52	Anomalous impedance and anomalous ion heating due to gyrorelaxation through magnetohydrodynamic fluctuations. <i>Physics of Fluids B</i> , 1992, 4, 1534-1538.	1.7	2
53	Confinement of nonneutral plasmas in the Prototype Ring Trap device. , 1999, , .		2
54	Degenerate Laplacian describing topologically constrained diffusion: helicity constraint as an alternative to ellipticity. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019, 52, 355202.	2.1	2

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55	Beam-driven ultra-low-q torus for intense 14MeV neutron source.. KakuyÅ«gÅ•KenkyÅ«, 1987, 57, 241-260.	0.1	2
56	Modification of Probe Characteristics in a Supersonic Plasma Flow. Plasma and Fusion Research, 2008, 3, 019-019.	0.7	2
57	The kinetic origin of the fluid helicityâ€™A symmetry in the kinetic phase space. Journal of Mathematical Physics, 2022, 63, 023101.	1.1	2
58	Toroidal Equilibrium of Plasma with Concentrated Relativistic Electron Beam. Journal of the Physical Society of Japan, 1989, 58, 856-859.	1.6	1
59	Parameter Optimization of the Inductively Operated Day-Long Tokamak Reactor. Fusion Science and Technology, 1993, 24, 188-199.	0.6	1
60	Discrete Eigenstates of Plasmas Described by the Chandrasekhar-Kendall Functions. Progress of Theoretical Physics, 1991, 86, 45-55.	2.0	1
61	Bootstrap Currents and its Scaling in the Non-Circular Tokamaks.. KakuyÅ«gÅ•KenkyÅ«, 1992, 68, 404-408.	0.1	1
62	Ultra low-q discharge and high temperature experiments in REPUTE-1.. KakuyÅ«gÅ•KenkyÅ«, 1988, 59, 494-512.	0.1	1
63	ULQ experiments in TORIUT-6; Results of ramp-up discharge and effects of carbonization on the plasma behavior.. KakuyÅ«gÅ•KenkyÅ«, 1988, 59, 20-29.	0.1	1
64	Thermal Power Regulation System for Pulsed Fusion Reactor.. KakuyÅ«gÅ•KenkyÅ«, 1992, 68, 155-158.	0.1	1
65	Kinetic construction of the high-beta anisotropic-pressure equilibrium in the magnetosphere. Physics of Plasmas, 2021, 28, 122301.	1.9	1
66	Intrinsic Dissipative Structure and Magnetohydrodynamic Equilibria. Journal of the Physical Society of Japan, 1986, 55, 1925-1930.	1.6	0
67	Structures in plasmas and their self-organizations.. KakuyÅ«gÅ•KenkyÅ«, 1989, 62, 319-347.	0.1	0
68	Roles of Magnetic Helicity in Plasma Confinement. Journal of Nuclear Science and Technology, 1990, 27, 193-204.	1.3	0
69	A bound for the pressure integral in a plasma equilibrium. Journal of Statistical Physics, 1993, 72, 1375-1389.	1.2	0
70	Parameter Dependence of Inward Diffusion on Injected Electrons in Helical Non-Neutral Plasmas. AIP Conference Proceedings, 2003, , .	0.4	0
71	Lower bounds on zonal enstrophy. Journal of Fluid Mechanics, 2021, 919, .	3.4	0
72	Calibration of coherence imaging spectroscopy using spectral line sources. Review of Scientific Instruments, 2021, 92, 073501.	1.3	0

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73	A mathematical aspect of magnetohydrodynamics. On the convective nonlinearity in a dissipative dynamical system.. KakuyÅ«gÅ•KenkyÅ«, 1984, 51, 127-139.	0.1	0
74	Ignition Conditions of Ohmically Heated DT TOKAMAK Reactors Operated in the Ultra-Low-q, Regime. KakuyÅ«gÅ•KenkyÅ«, 1985, 54, 567-586.	0.1	0
75	Remarks on equilibria in dynamical systems and ergodic theory -Self-organization of MHD equilibria-. KakuyÅ«gÅ•KenkyÅ«, 1985, 53, 298-305.	0.1	0
76	Summary of very low-q discharges in TORIUT tokamaks.. KakuyÅ«gÅ•KenkyÅ«, 1986, 56, 341-354.	0.1	0
77	Quasi-ultimate and quasistatic states in MHD systems.. KakuyÅ«gÅ•KenkyÅ«, 1986, 56, 115-123.	0.1	0
78	Discussions on the Grad-Shafranov equation.. KakuyÅ«gÅ•KenkyÅ«, 1987, 57, 325-331.	0.1	0
79	Comments on variational analyses for MHD.. KakuyÅ«gÅ•KenkyÅ«, 1987, 58, 40-49.	0.1	0
80	Remarks on the measurement of the loop voltage and its relation to the resistance anomaly in toroidal current systems.. KakuyÅ«gÅ•KenkyÅ«, 1988, 60, 54-59.	0.1	0
81	Symmetry breaking in plasma equilibria - Appearance of an intrinsic structure.. KakuyÅ«gÅ•KenkyÅ«, 1989, 61, 328-337.	0.1	0
82	Application of fuzzy theory to plasma data analysis.. KakuyÅ«gÅ•KenkyÅ«, 1989, 62, 151-158.	0.1	0
83	Anomalous ion heating correlated with MHD relaxation.. KakuyÅ«gÅ•KenkyÅ«, 1990, 64, 58-70.	0.1	0
84	A Model of Energy Balance in a Plasma Dominated by the MHD Relaxation Process.. KakuyÅ«gÅ•KenkyÅ«, 1991, 66, 135-143.	0.1	0
85	Saturated Island Width in Tokamak with External Helical Perturbation. Journal of the Physical Society of Japan, 1987, 56, 2241-2244.	1.6	0
86	Clebsch representation of relativistic plasma and generalized enstrophy. Physics of Plasmas, 2022, 29, 052905.	1.9	0
87	Nambu mechanics viewed as a Clebsch parameterized Poisson algebra " toward canonicalization and quantization. Progress of Theoretical and Experimental Physics, 0, , .	6.6	0