

Ilon Joseph

List of Publications by Year in descending order

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Version: 2024-02-01

48
papers

2,273
citations

331670

21
h-index

243625

44
g-index

48
all docs

48
docs citations

48
times ranked

1416
citing authors

#	ARTICLE	IF	CITATIONS
1	Edge stability and transport control with resonant magnetic perturbations in collisionless tokamak plasmas. <i>Nature Physics</i> , 2006, 2, 419-423.	16.7	538
2	RMP ELM suppression in DIII-D plasmas with ITER similar shapes and collisionalities. <i>Nuclear Fusion</i> , 2008, 48, 024002.	3.5	348
3	Effect of island overlap on edge localized mode suppression by resonant magnetic perturbations in DIII-D. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	139
4	Overview of the results on divertor heat loads in RMP controlled H-mode plasmas on DIII-D. <i>Nuclear Fusion</i> , 2009, 49, 095013.	3.5	136
5	Aspects of three dimensional transport for ELM control experiments in ITER-similar shape plasmas at low collisionality in DIII-D. <i>Plasma Physics and Controlled Fusion</i> , 2008, 50, 124029.	2.1	89
6	The physics of edge resonant magnetic perturbations in hot tokamak plasmas. <i>Physics of Plasmas</i> , 2006, 13, 056121.	1.9	86
7	Kinetic estimate of the shielding of resonant magnetic field perturbations by the plasma in DIII-D. <i>Nuclear Fusion</i> , 2008, 48, 024005.	3.5	81
8	Plasma transport in stochastic magnetic field caused by vacuum resonant magnetic perturbations at diverted tokamak edge. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	76
9	Role of singular layers in the plasma response to resonant magnetic perturbations. <i>Nuclear Fusion</i> , 2012, 52, 074004.	3.5	69
10	Calculation of stochastic thermal transport due to resonant magnetic perturbations in DIII-D*. <i>Nuclear Fusion</i> , 2008, 48, 045009.	3.5	60
11	Improved understanding of physics processes in pedestal structure, leading to improved predictive capability for ITER. <i>Nuclear Fusion</i> , 2013, 53, 093024.	3.5	59
12	BOUT++: Recent and current developments. <i>Journal of Plasma Physics</i> , 2015, 81, .	2.1	49
13	RMP enhanced transport and rotational screening in simulations of DIII-D plasmas. <i>Nuclear Fusion</i> , 2008, 48, 115004.	3.5	46
14	Extended MHD simulation of resonant magnetic perturbations. <i>Nuclear Fusion</i> , 2009, 49, 055025.	3.5	43
15	Gyro-fluid and two-fluid theory and simulations of edge-localized-modes. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	42
16	Experimental and numerical studies of separatrix splitting and magnetic footprints in DIII-D. <i>Journal of Nuclear Materials</i> , 2007, 363-365, 570-574.	2.7	41
17	Koopmanâ€von Neumann approach to quantum simulation of nonlinear classical dynamics. <i>Physical Review Research</i> , 2020, 2, .	3.6	40
18	A fast non-Fourier method for Landau-fluid operators. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	33

#	ARTICLE	IF	CITATIONS
19	Comparison of 2D simulations of detached divertor plasmas with divertor Thomson measurements in the DIII-D tokamak. Nuclear Materials and Energy, 2017, 12, 44-50.	1.3	26
20	Particle, heat, and sheath power transmission factor profiles during ELM suppression experiments on DIII-D. Journal of Nuclear Materials, 2009, 390-391, 839-842.	2.7	25
21	Pedestal, SOL and divertor plasma properties in DIII-D RMP ELM-suppressed discharges at ITER relevant edge collisionality. Journal of Nuclear Materials, 2007, 363-365, 476-483.	2.7	23
22	Driving toroidally asymmetric current through the tokamak scrape-off layer. I. Potential for edge localized mode suppression. Physics of Plasmas, 2009, 16, 052510.	1.9	21
23	Quantum phase estimation for a class of generalized eigenvalue problems. Physical Review A, 2020, 102, .	2.5	21
24	Edge-Localized Mode Control and Transport Generated by Externally Applied Magnetic Perturbations. Contributions To Plasma Physics, 2012, 52, 326-347.	1.1	19
25	Modeling of tokamak divertor plasma for weakly collisional parallel electron transport. Journal of Nuclear Materials, 2015, 463, 506-509.	2.7	19
26	Stochastic transport modeling of resonant magnetic perturbations in DIII-D. Journal of Nuclear Materials, 2007, 363-365, 591-595.	2.7	17
27	Quantitative study of the trapped particle bunching instability in Langmuir waves. Physics of Plasmas, 2015, 22, .	1.9	17
28	Stellarator Research Opportunities: A Report of the National Stellarator Coordinating Committee. Journal of Fusion Energy, 2018, 37, 51-94.	1.2	15
29	Driving toroidally asymmetric current through the tokamak scrape-off layer. II. Magnetic field structure and spectrum. Physics of Plasmas, 2009, 16, 052511.	1.9	13
30	Three dimensional nonlinear simulations of edge localized modes on the EAST tokamak using BOUT++ code. Physics of Plasmas, 2014, 21, 090705.	1.9	11
31	Nonlinear instability in simulations of Large Plasma Device turbulence. Physics of Plasmas, 2013, 20, .	1.9	9
32	Connecting Collisionless Landau Fluid Closures to Collisional Plasma Physics Models. Contributions To Plasma Physics, 2016, 56, 504-510.	1.1	9
33	Koopman wavefunctions and Clebsch variables in Vlasov-Maxwell kinetic theory. Journal of Plasma Physics, 2021, 87, .	2.1	9
34	Simulating non-native cubic interactions on noisy quantum machines. Physical Review A, 2021, 103, .	2.5	8
35	Impact of ion temperature anisotropy on 2D edge-plasma transport. Nuclear Materials and Energy, 2021, 26, 100881.	1.3	7
36	On the applicability of the standard approaches for evaluating a neoclassical radial electric field in a tokamak edge region. Physics of Plasmas, 2013, 20, .	1.9	5

#	ARTICLE	IF	CITATIONS
37	Fast pedestal, SOL and divertor measurements from DIII-D to validate BOUT++ nonlinear ELM simulations. <i>Journal of Nuclear Materials</i> , 2013, 438, S346-S350.	2.7	4
38	Electron parallel closures for the 3 + 1 fluid model. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	4
39	Generation of non-axisymmetric scrape-off layer perturbations for controlling tokamak edge plasma profiles and stability. <i>Physics of Plasmas</i> , 2012, 19, 056124.	1.9	3
40	On coupling fluid plasma and kinetic neutral physics models. <i>Nuclear Materials and Energy</i> , 2017, 12, 813-818.	1.3	3
41	Linearized Coulomb Collision Operator for Simulation of Interpenetrating Plasma Streams. <i>IEEE Transactions on Plasma Science</i> , 2019, 47, 2074-2080.	1.3	3
42	Guiding center and gyrokinetic orbit theory for large electric field gradients and strong shear flows. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	3
43	Assessment of thermo-electric techniques for scrape-off layer current drive in flux-tube geometry. <i>Journal of Nuclear Materials</i> , 2011, 415, S932-S935.	2.7	2
44	Magnetic Perturbation Spectrum Produced by Non-axisymmetric Scrape-off Layer Current and the X-point Shadow. <i>Contributions To Plasma Physics</i> , 2010, 50, 331-337.	1.1	1
45	Simulation of edge localized mode heat pulse using drift-kinetic ions and Boltzmann electrons. <i>Nuclear Materials and Energy</i> , 2019, 19, 330-334.	1.3	1
46	Nonlinear kinetic simulation study of the ion-ion streaming instability in single- and multi-ion species plasmas. <i>Physics of Plasmas</i> , 2021, 28, 022105.	1.9	0
47	Ion temperature anisotropy in the tokamak scrape-off layer. <i>Plasma Physics and Controlled Fusion</i> , 0, , .	2.1	0
48	Ion temperature anisotropy model with cross-field drifts in the scrape-off layer. <i>Contributions To Plasma Physics</i> , 0, , .	1.1	0