

Nathan Howard

List of Publications by Year in descending order

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docs citations

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times ranked

904
citing authors

#	ARTICLE	IF	CITATIONS
1	Interpreting radial correlation Doppler reflectometry using gyrokinetic simulations. Plasma Physics and Controlled Fusion, 2022, 64, 055019.	2.1	9
2	Edge turbulence measurements in L-mode and I-mode at ASDEX Upgrade. Physics of Plasmas, 2022, 29, 052504.	1.9	10
3	Feasibility study for a high-k temperature fluctuation diagnostic based on soft x-ray imaging. Review of Scientific Instruments, 2021, 92, 053537.	1.3	1
4	Particle transport constraints via Bayesian spectral fitting of multiple atomic lines. Review of Scientific Instruments, 2021, 92, 053508.	1.3	4
5	Gyrokinetic simulation of turbulence and transport in the SPARC tokamak. Physics of Plasmas, 2021, 28, .	1.9	12
6	The role of ion and electron-scale turbulence in setting heat and particle transport in the DIII-D ITER baseline scenario. Nuclear Fusion, 2021, 61, 106002.	3.5	5
7	Predictions of core plasma performance for the SPARC tokamak. Journal of Plasma Physics, 2020, 86, .	2.1	45
8	Overview of the SPARC tokamak. Journal of Plasma Physics, 2020, 86, .	2.1	181
9	Dependence of the impurity transport on the dominant turbulent regime in ELM-y H-mode discharges on the DIII-D tokamak. Physics of Plasmas, 2020, 27, .	1.9	22
10	Projections of H-mode access and edge pedestal in the SPARC tokamak. Journal of Plasma Physics, 2020, 86, .	2.1	16
11	Quantitative comparisons of electron-scale turbulence measurements in NSTX via synthetic diagnostics for high- k scattering. Plasma Physics and Controlled Fusion, 2020, 62, 075001.	2.1	7
12	Inference of experimental radial impurity transport on Alcator C-Mod: Bayesian parameter estimation and model selection. Nuclear Fusion, 2020, 60, 126014.	3.5	20
13	Validation of gyrokinetic simulations in NSTX and projections for high-k turbulence measurements in NSTX-U. Physics of Plasmas, 2020, 27, 122505.	1.9	4
14	Predict-first experiments and modeling of perturbative cold pulses in the DIII-D tokamak. Physics of Plasmas, 2019, 26, .	1.9	14
15	Validation of gyrokinetic simulations of a National Spherical Torus eXperiment H-mode plasma and comparisons with a high- k scattering synthetic diagnostic. Plasma Physics and Controlled Fusion, 2019, 61, 115015.	2.1	6
16	Criteria for the importance of multi-scale interactions in turbulent transport simulations. Plasma Physics and Controlled Fusion, 2019, 61, 085022.	2.1	14
17	Explaining Cold-Pulse Dynamics in Tokamak Plasmas Using Local Turbulent Transport Models. Physical Review Letters, 2018, 120, 075001.	7.8	34
18	Multi-scale gyrokinetic simulations of an Alcator C-Mod, ELM-y H-mode plasma. Plasma Physics and Controlled Fusion, 2018, 60, 014034.	2.1	12

#	ARTICLE	IF	CITATIONS
19	X-ray observations of K_{η} emission from medium-Z He-like ions in C-Mod tokamak plasmas. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018, 51, 035702.	1.5	4
20	Validation study of GENE on ASDEX Upgrade using perturbative thermal diffusivity measured with partial sawtooth heat pulses. <i>Nuclear Fusion</i> , 2018, 58, 126001.	3.5	6
21	Verification of GENE and GYRO with L-mode and I-mode plasmas in Alcator C-Mod. <i>Physics of Plasmas</i> , 2018, 25, 042505.	1.9	7
22	VITALS: A Surrogate-Based Optimization Framework for the Accelerated Validation of Plasma Transport Codes. <i>Fusion Science and Technology</i> , 2018, 74, 65-76.	1.1	13
23	Validation of nonlinear gyrokinetic simulations of L- and I-mode plasmas on Alcator C-Mod. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	21
24	The role of zonal flows in the saturation of multi-scale gyrokinetic turbulence. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	91
25	Quantitative comparison of electron temperature fluctuations to nonlinear gyrokinetic simulations in C-Mod Ohmic L-mode discharges. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	16
26	Multi-scale gyrokinetic simulations: Comparison with experiment and implications for predicting turbulence and transport. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	59
27	Multispecies density peaking in gyrokinetic turbulence simulations of low collisionality Alcator C-Mod plasmas. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	12
28	X-ray observations of medium Z H- and He-like ions with satellites from C-Mod tokamak plasmas. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015, 48, 144013.	1.5	11
29	Fidelity of reduced and realistic electron mass ratio multi-scale gyrokinetic simulations of tokamak discharges. <i>Plasma Physics and Controlled Fusion</i> , 2015, 57, 065009.	2.1	18
30	Impurity transport, turbulence transitions and intrinsic rotation in Alcator C-Mod plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2014, 56, 124004.	2.1	13
31	Synergistic cross-scale coupling of turbulence in a tokamak plasma. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	52
32	Study of the L-mode tokamak plasma with local and global nonlinear gyrokinetic particle-in-cell simulation. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	11
33	Impurity transport in Alcator C-Mod in the presence of poloidal density variation induced by ion cyclotron resonance heating. <i>Plasma Physics and Controlled Fusion</i> , 2014, 56, 124005.	2.1	7
34	Multi-scale gyrokinetic simulation of Alcator C-Mod tokamak discharges. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	29
35	Measurement of electron temperature fluctuations using a tunable correlation electron cyclotron emission system on Alcator C-Mod. <i>Review of Scientific Instruments</i> , 2014, 85, 11D811.	1.3	13
36	X-ray observations of Ca^{19} , Ca^{18} and satellites from Alcator C-Mod tokamak plasmas. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2014, 47, 075701.	1.5	20

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37	X-ray imaging crystal spectroscopy for use in plasma transport research. Review of Scientific Instruments, 2012, 83, 113504.	1.3	63
38	Ohmic energy confinement saturation and core toroidal rotation reversal in Alcator C-Mod plasmas. Physics of Plasmas, 2012, 19, .	1.9	56
39	Characterization of impurity confinement on Alcator C-Mod using a multi-pulse laser blow-off system. Review of Scientific Instruments, 2011, 82, 033512.	1.3	39
40	Feasibility study for a correlation electron cyclotron emission turbulence diagnostic based on nonlinear gyrokinetic simulations. Plasma Physics and Controlled Fusion, 2011, 53, 115003.	2.1	7
41	Vacuum ultraviolet impurity spectroscopy on the Alcator C-Mod tokamak. Review of Scientific Instruments, 2010, 81, 10D736.	1.3	52