

Seung-Hoe Ku

List of Publications by Year in descending order

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88
papers

2,394
citations

218677

26
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223800

46
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91
all docs

91
docs citations

91
times ranked

1474
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical study of neoclassical plasma pedestal in a tokamak geometry. <i>Physics of Plasmas</i> , 2004, 11, 2649-2667.	1.9	158
2	On the validity of the local diffusive paradigm in turbulent plasma transport. <i>Physical Review E</i> , 2010, 82, 025401.	2.1	155
3	Full-f gyrokinetic particle simulation of centrally heated global ITG turbulence from magnetic axis to edge pedestal top in a realistic tokamak geometry. <i>Nuclear Fusion</i> , 2009, 49, 115021.	3.5	139
4	Gyrokinetic projection of the divertor heat-flux width from present tokamaks to ITER. <i>Nuclear Fusion</i> , 2017, 57, 116023.	3.5	125
5	An overview of intrinsic torque and momentum transport bifurcations in toroidal plasmas. <i>Nuclear Fusion</i> , 2013, 53, 104019.	3.5	89
6	Spontaneous rotation sources in a quiescent tokamak edge plasma. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	86
7	Compressed ion temperature gradient turbulence in diverted tokamak edge. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	80
8	A fast low-to-high confinement mode bifurcation dynamics in the boundary-plasma gyrokinetic code XGC1. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	79
9	X-transport: A baseline nonambipolar transport in a diverted tokamak plasma edge. <i>Physics of Plasmas</i> , 2002, 9, 3884-3892.	1.9	73
10	Fast Low-to-High Confinement Mode Bifurcation Dynamics in a Tokamak Edge Plasma Gyrokinetic Simulation. <i>Physical Review Letters</i> , 2017, 118, 175001.	7.8	73
11	A new hybrid-Lagrangian numerical scheme for gyrokinetic simulation of tokamak edge plasma. <i>Journal of Computational Physics</i> , 2016, 315, 467-475.	3.8	69
12	ISABELA for effective in situ compression of scientific data. <i>Concurrency Computation Practice and Experience</i> , 2013, 25, 524-540.	2.2	62
13	A fully non-linear multi-species Fokker-Planck-Landau collision operator for simulation of fusion plasma. <i>Journal of Computational Physics</i> , 2016, 315, 644-660.	3.8	61
14	Predictions on heat transport and plasma rotation from global gyrokinetic simulations. <i>Nuclear Fusion</i> , 2011, 51, 103023.	3.5	56
15	ISOBAR Preconditioner for Effective and High-throughput Lossless Data Compression. , 2012, , .		47
16	Overview of NSTX Upgrade initial results and modelling highlights. <i>Nuclear Fusion</i> , 2017, 57, 102006.	3.5	45
17	Extended MHD simulation of resonant magnetic perturbations. <i>Nuclear Fusion</i> , 2009, 49, 055025.	3.5	43
18	Property of an X-point generated velocity-space hole in a diverted tokamak plasma edge. <i>Physics of Plasmas</i> , 2004, 11, 5626-5633.	1.9	42

#	ARTICLE	IF	CITATIONS
19	Overview of results from the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2009, 49, 104016.	3.5	41
20	Neoclassical physics in full distribution function gyrokinetics. Physics of Plasmas, 2011, 18, .	1.9	35
21	Kinetic neoclassical transport in the H-mode pedestal. Physics of Plasmas, 2014, 21, .	1.9	34
22	Effect of gas fuelling location on H-mode access in NSTX. Plasma Physics and Controlled Fusion, 2004, 46, A305-A313.	2.1	33
23	Gyrokinetic particle simulation of neoclassical transport in the pedestal/scrape-off region of a tokamak plasma. Journal of Physics: Conference Series, 2006, 46, 87-91.	0.4	31
24	ISABELA-QA. , 2011, , .		31
25	Bootstrap current for the edge pedestal plasma in a diverted tokamak geometry. Physics of Plasmas, 2012, 19, .	1.9	31
26	Progress in characterization of the pedestal stability and turbulence during the edge-localized-mode cycle on National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 093026.	3.5	28
27	Pedestal and edge electrostatic turbulence characteristics from an XGC1 gyrokinetic simulation. Plasma Physics and Controlled Fusion, 2017, 59, 105014.	2.1	28
28	Neutral recycling effects on ITG turbulence. Nuclear Fusion, 2017, 57, 086028.	3.5	28
29	Cross-verification of the global gyrokinetic codes GENE and XGC. Physics of Plasmas, 2018, 25, 062308.	1.9	26
30	Gyrokinetic simulation study of magnetic island effects on neoclassical physics and micro-instabilities in a realistic KSTAR plasma. Physics of Plasmas, 2018, 25, .	1.9	24
31	Dependence of the Lâ€“H transition on X-point geometry and divertor recycling on NSTX. Nuclear Fusion, 2013, 53, 113032.	3.5	23
32	Intrinsic momentum generation by a combined neoclassical and turbulence mechanism in diverted DIII-D plasma edge. Physics of Plasmas, 2014, 21, 092501.	1.9	23
33	Physics of intrinsic rotation in flux-driven ITG turbulence. Nuclear Fusion, 2012, 52, 063013.	3.5	22
34	Constructing a new predictive scaling formula for ITER's divertor heat-load width informed by a simulation-anchored machine learning. Physics of Plasmas, 2021, 28, .	1.9	22
35	Whole-volume integrated gyrokinetic simulation of plasma turbulence in realistic diverted-tokamak geometry. Journal of Physics: Conference Series, 2009, 180, 012057.	0.4	21
36	Scaling to 150K cores: Recent algorithm and performance engineering developments enabling XGC1 to run at scale. Journal of Physics: Conference Series, 2009, 180, 012036.	0.4	21

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37	An overview of recent physics results from NSTX. Nuclear Fusion, 2015, 55, 104002.	3.5	21
38	Coupling Exascale Multiphysics Applications: Methods and Lessons Learned. , 2018, , .		20
39	Mesh generation for confined fusion plasma simulation. Engineering With Computers, 2016, 32, 285-293.	6.1	18
40	Suppression of Landau damping via electron band gap. Physics of Plasmas, 2010, 17, .	1.9	17
41	A tight-coupling scheme sharing minimum information across a spatial interface between gyrokinetic turbulence codes. Physics of Plasmas, 2018, 25, 072308.	1.9	17
42	Backward Raman compression of x-rays in metals and warm dense matters. Physics of Plasmas, 2010, 17, .	1.9	16
43	Coupled simulation of kinetic pedestal growth and MHD ELM crash. Journal of Physics: Conference Series, 2007, 78, 012087.	0.4	15
44	Verification of the global gyrokinetic stellarator code XGC-S for linear ion temperature gradient driven modes. Physics of Plasmas, 2019, 26, .	1.9	15
45	Particle Simulation of Neoclassical Transport in the Plasma Edge. Contributions To Plasma Physics, 2006, 46, 496-503.	1.1	14
46	Verification of long wavelength electromagnetic modes with a gyrokinetic-fluid hybrid model in the XGC code. Physics of Plasmas, 2017, 24, 054508.	1.9	14
47	Full-f XGC1 gyrokinetic study of improved ion energy confinement from impurity stabilization of ITG turbulence. Physics of Plasmas, 2017, 24, .	1.9	14
48	Numerical investigation on plasma and poly-Si etching uniformity control over a large area in a resonant inductively coupled plasma source. Physics of Plasmas, 2001, 8, 1384.	1.9	13
49	The Mistral base case to validate kinetic and fluid turbulence transport codes of the edge and SOL plasmas. Journal of Nuclear Materials, 2011, 415, S597-S600.	2.7	13
50	Coarse-graining the electron distribution in turbulence simulations of tokamak plasmas. Physics of Plasmas, 2008, 15, .	1.9	12
51	Toward a first-principles integrated simulation of tokamak edge plasmas. Journal of Physics: Conference Series, 2008, 125, 012042.	0.4	12
52	Nonlinear global gyrokinetic δf turbulence simulations in a quasi-axisymmetric stellarator. Physics of Plasmas, 2020, 27, .	1.9	12
53	Spatial coupling of gyrokinetic simulations, a generalized scheme based on first-principles. Physics of Plasmas, 2021, 28, .	1.9	12
54	Wall intersection of ion orbits induced by fast transport of pedestal plasma over an electrostatic potential hill in a tokamak plasma edge. Physics of Plasmas, 2005, 12, 102501.	1.9	11

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55	Development of a Gyrokinetic Particle-in-Cell Code for Whole-Volume Modeling of Stellarators. Plasma, 2019, 2, 179-200.	1.8	11
56	Comparative collisionless alpha particle confinement in stellarator reactors with the XGC gyrokinetic code. Physics of Plasmas, 2019, 26, 032506.	1.9	11
57	Study of upâ€“down poloidal density asymmetry of high- impurities with the new impurity version of XGCa. Journal of Plasma Physics, 2019, 85, .	2.1	10
58	Spatial core-edge coupling of the particle-in-cell gyrokinetic codes GEM and XGC. Physics of Plasmas, 2020, 27, 122510.	1.9	10
59	Kinetic modeling of divertor heat load fluxes in the Alcator C-Mod and DIII-D tokamaks. Physics of Plasmas, 2015, 22, .	1.9	9
60	What happens to full-f gyrokinetic transport and turbulence in a toroidal wedge simulation?. Physics of Plasmas, 2017, 24, .	1.9	7
61	Gyroaveraging operations using adaptive matrix operators. Physics of Plasmas, 2018, 25, .	1.9	7
62	Shadowing effects in simulated Alcator C-Mod gas puff imaging data. Nuclear Materials and Energy, 2019, 19, 113-119.	1.3	7
63	Verification of a fully implicit particle-in-cell method for the $v \cdot \nabla$ -formalism of electromagnetic gyrokinetics in the XGC code. Physics of Plasmas, 2021, 28, 072505.	1.9	7
64	Strong variation of average ion energy in oscillation frequency of sheath potential. Physics of Plasmas, 2000, 7, 766-769.	1.9	6
65	Neoclassical polarization drift of collisionless single ions in a sheared radial electric field in a tokamak magnetic geometry. Physics of Plasmas, 2006, 13, 012503.	1.9	6
66	Theory of plasmon decay in dense plasmas and warm dense matters. Physics of Plasmas, 2010, 17, .	1.9	6
67	Pedestal fueling simulations with a coupled kinetic plasmaâ€“kinetic neutral transport code. Journal of Nuclear Materials, 2013, 438, S1275-S1279.	2.7	6
68	Reduction of blob-filament radial propagation by parallel variation of flows: Analysis of a gyrokinetic simulation. Physics of Plasmas, 2020, 27, .	1.9	5
69	Photonic band gap and x-ray optics in warm dense matter. Physics of Plasmas, 2010, 17, 052702.	1.9	4
70	Analysis of equilibrium and turbulent fluxes across the separatrix in a gyrokinetic simulation. Physics of Plasmas, 2018, 25, 072306.	1.9	4
71	Comparison of edge turbulence characteristics between DIII-D and C-Mod simulations with XGC1. Physics of Plasmas, 2020, 27, .	1.9	4
72	X-point ion orbit physics in scrape-off layer and generation of a localized electrostatic potential perturbation around X-point. Physics of Plasmas, 2019, 26, 014504.	1.9	3

#	ARTICLE	IF	CITATIONS
73	Maintaining Trust in Reduction: Preserving the Accuracy of Quantities of Interest for Lossy Compression. Communications in Computer and Information Science, 2022, , 22-39.	0.5	3
74	An optimum feedback coil position for active stabilization of resistive wall modes. Physics of Plasmas, 2001, 8, 3107-3110.	1.9	2
75	Response to "Comment on "X-transport: A baseline nonambipolar transport in a diverted tokamak plasma edge" [Phys. Plasmas 10, 1530 (2003)]. Physics of Plasmas, 2003, 10, 1532-1533.	1.9	2
76	S-preconditioner for Multi-fold Data Reduction with Guaranteed User-Controlled Accuracy. , 2011, , .		2
77	NERSC's Impact on Advances of Global Gyrokinetic PIC Codes for Fusion Energy Research. Computing in Science and Engineering, 2015, 17, 10-21.	1.2	2
78	A Framework for International Collaboration on ITER Using Large-Scale Data Transfer to Enable Near-Real-Time Analysis. Fusion Science and Technology, 2021, 77, 98-108.	1.1	2
79	Generation of E \times B flow shear by finite orbit width effects from heat sources in tokamaks. Nuclear Fusion, 2022, 62, 036010.	3.5	2
80	Plasmon band gap generated by intense ion acoustic waves. Physics of Plasmas, 2010, 17, 024501.	1.9	1
81	Pressure balance in a lower collisionality, attached tokamak scrape-off layer. Nuclear Fusion, 2019, 59, 096002.	3.5	1
82	Improving Gyrokinetic Field Solvers toward Whole-Volume Modeling of Stellarators. Plasma and Fusion Research, 2021, 16, 2403054-2403054.	0.7	1
83	Toward the core-edge coupling of delta-f and total-f gyrokinetic models. Physics of Plasmas, 2022, 29, 032301.	1.9	1
84	Effects of collisional ion orbit loss on neoclassical tokamak radial electric fields. Nuclear Fusion, 2022, 62, 066012.	3.5	1
85	Seasonal Variation May Affect the Pregnancy Rates of Fresh Embryo Transfer Cycles, NOT in Cryopreserved-Thawed Embryo Transfer Cycles in Women With Tubal or Unexplained Infertility. Fertility and Sterility, 2005, 84, S246-S247.	1.0	0
86	Finding Structure in Large Data Sets of Particle Distribution Functions Using Unsupervised Machine Learning. IEEE Transactions on Plasma Science, 2020, , 1-4.	1.3	0
87	Property of neoclassical GAMs induced by pellet generated plasma perturbations in the gyrokinetic code XGC. Physics of Plasmas, 2021, 28, 044501.	1.9	0
88	10.1063/5.0002876.1., 2020, , .		0