

Taik Soo Hahm

List of Publications by Year in descending order

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121
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docs citations

121
times ranked

2330
citing authors

#	ARTICLE	IF	CITATIONS
1	Extended bounce-kinetic model for trapped electron mode turbulence. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	1
2	Effects of plasma turbulence on the nonlinear evolution of magnetic island in tokamak. <i>Nature Communications</i> , 2021, 12, 375.	12.8	27
3	Anisotropic \tilde{v}_E shearing rate in a magnetic island. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	17
4	Effect of temperature anisotropy on residual zonal flow level. <i>Physics of Plasmas</i> , 2021, 28, 052303.	1.9	6
5	Nonlinear gyrokinetic simulation of saturated turbulence produced by fast ion precession driven drift instability in reversed shear plasmas. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2021, 414, 127632.	2.1	0
6	Gyrokinetic studies of fast ion precession driven drift instability in reversed shear plasmas. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	2
7	Fast ion driven drift instability in reversed shear plasmas. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	4
8	Gyrokinetic study of slowing-down $\hat{\pm}$ particles transport due to trapped electron mode turbulence. <i>Physics of Plasmas</i> , 2018, 25, 122305.	1.9	13
9	Mesoscopic Transport Events and the Breakdown of Fick's Law for Turbulent Fluxes. <i>Journal of the Korean Physical Society</i> , 2018, 73, 747-792.	0.7	77
10	Evidence of a turbulent ExB mixing avalanche mechanism of gas breakdown in strongly magnetized systems. <i>Nature Communications</i> , 2018, 9, 3523.	12.8	17
11	Properties of ion temperature gradient and trapped electron modes in tokamak plasmas with inverted density profiles. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	14
12	Gyrokinetic simulations of electrostatic microinstabilities with bounce-averaged kinetic electrons for shaped tokamak plasmas. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	26
13	ExB shear and precession shear induced turbulence suppression and its influence on electron thermal internal transport barrier formation. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	7
14	In-out asymmetry of zonal flow shear and turbulence reduction. <i>Physics of Plasmas</i> , 2016, 23, 102312.	1.9	3
15	Small scale coherent vortex generation in drift wave-zonal flow turbulence. <i>Physics of Plasmas</i> , 2015, 22, 122304.	1.9	6
16	Ion Heating from Nonlinear Landau Damping of High Mode Number Toroidal Alfvén Eigenmodes. <i>Plasma Science and Technology</i> , 2015, 17, 534-538.	1.5	6
17	Compact formulas for bounce/transit averaging in axisymmetric tokamak geometry. <i>Physics of Plasmas</i> , 2014, 21, 122510.	1.9	14
18	Effects of q-profile structure on turbulence spreading: A fluctuation intensity transport analysis. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	9

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19	Design Features and Commissioning of the Versatile Experiment Spherical Torus (VEST) at Seoul National University. Plasma Science and Technology, 2013, 15, 244-251.	1.5	57
20	Verification of Gyrokinetic Particle Simulation of Device Size Scaling of Turbulent Transport. Plasma Science and Technology, 2012, 14, 1125-1126.	1.5	10
21	Edge Temperature Gradient as Intrinsic Rotation Drive in Alcator C -Mod Tokamak Plasmas. Physical Review Letters, 2011, 106, 215001.	7.8	83
22	Characteristics of turbulence-driven plasma flow and origin of experimental empirical scalings of intrinsic rotation. Physics of Plasmas, 2011, 18, 042502.	1.9	11
23	Poloidal rotation and its relation to the potential vorticity flux. Physics of Plasmas, 2010, 17, .	1.9	24
24	A synthetic diagnostic for validation of electron gyroradius scale turbulence simulations against coherent scattering measurements. Physics of Plasmas, 2010, 17, .	1.9	8
25	Nonlinear flow generation by electrostatic turbulence in tokamaks. Physics of Plasmas, 2010, 17, 072511.	1.9	81
26	Response to "Comment on "Nonlinear gyrokinetic theory with polarization drift" [Phys. Plasmas 17, 124701 (2010)]. Physics of Plasmas, 2010, 17, 124702.	1.9	2
27	A simple model of intrinsic rotation in high confinement regime tokamak plasmas. Physics of Plasmas, 2010, 17, 032509.	1.9	19
28	Mechanisms for generating toroidal rotation in tokamaks without external momentum input. Physics of Plasmas, 2010, 17, .	1.9	74
29	Nonlinear gyrokinetic theory with polarization drift. Physics of Plasmas, 2010, 17, 082304.	1.9	25
30	Compressed ion temperature gradient turbulence in diverted tokamak edge. Physics of Plasmas, 2009, 16, .	1.9	80
31	Theory of fine-scale zonal flow generation from trapped electron mode turbulence. Physics of Plasmas, 2009, 16, 082302.	1.9	20
32	Toroidal Rotation Driven by the Polarization Drift. Physical Review Letters, 2009, 103, 205003.	7.8	41
33	Fully electromagnetic nonlinear gyrokinetic equations for tokamak edge turbulence. Physics of Plasmas, 2009, 16, 022305.	1.9	44
34	Response to "Comment on "Turbulent equipartition theory of toroidal momentum pinch" [Phys. Plasmas 16, 034703 (2009)]. Physics of Plasmas, 2009, 16, 034704.	1.9	3
35	A novel mechanism for exciting intrinsic toroidal rotation. Physics of Plasmas, 2009, 16, 052302.	1.9	40
36	Generalized expression for polarization density. Physics of Plasmas, 2009, 16, .	1.9	55

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37	Momentum theorems and the structure of atmospheric jets and zonal flows in plasmas. Plasma Physics and Controlled Fusion, 2008, 50, 124018.	2.1	47
38	Physics of Zonal Flows. AIP Conference Proceedings, 2008, , .	0.4	3
39	Transport of parallel momentum by collisionless drift wave turbulence. AIP Conference Proceedings, 2008, , .	0.4	0
40	Transport of parallel momentum by collisionless drift wave turbulence. Physics of Plasmas, 2008, 15, .	1.9	126
41	Turbulent equipartition theory of toroidal momentum pinch. Physics of Plasmas, 2008, 15, 055902.	1.9	44
42	Turbulent Equipartition and Homogenization of Plasma Angular Momentum. Physical Review Letters, 2008, 100, 135001.	7.8	53
43	Nonlocal properties of gyrokinetic turbulence and the role of $E\tilde{A}$ -B flow shear. Physics of Plasmas, 2007, 14, 072306.	1.9	69
44	Spatial and spectral evolution of turbulence. Physics of Plasmas, 2007, 14, 055902.	1.9	16
45	Nonlinear gyrokinetic theory of toroidal momentum pinch. Physics of Plasmas, 2007, 14, .	1.9	165
46	Simulation of Fusion Plasmas: Current Status and Future Direction. Plasma Science and Technology, 2007, 9, 312-387.	1.5	29
47	Foundations of nonlinear gyrokinetic theory. Reviews of Modern Physics, 2007, 79, 421-468.	45.6	791
48	Wave-Particle Decorrelation and Transport of Anisotropic Turbulence in Collisionless Plasmas. Physical Review Letters, 2007, 99, 265003.	7.8	61
49	Physics of zonal flows. Physics of Plasmas, 2006, 13, 055502.	1.9	172
50	Spatial and Spectral evolution of Turbulence Spectra. AIP Conference Proceedings, 2006, , .	0.4	0
51	Turbulence spreading in reversed shear plasmas. Plasma Physics and Controlled Fusion, 2006, 48, A409-A418.	2.1	31
52	Physics of burning plasmas in toroidal magnetic confinement devices. Plasma Physics and Controlled Fusion, 2006, 48, B15-B28.	2.1	68
53	Radial transport of fluctuation energy in a two-field model of drift-wave turbulence. Physics of Plasmas, 2006, 13, 052306.	1.9	37
54	Gyro-kinetic simulation of global turbulent transport properties in tokamak experiments. Physics of Plasmas, 2006, 13, 092505.	1.9	117

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55	Effect of Turbulence Spreading on Subcritical Turbulence in Inhomogeneous Plasmas. Journal of the Physical Society of Japan, 2005, 74, 2001-2006.	1.6	5
56	On the dynamics of edge-core coupling. Physics of Plasmas, 2005, 12, 090903.	1.9	44
57	Preface: Theory of plasma instabilities: Transport, stability, and their interactions. Physics of Plasmas, 2005, 12, 090901.	1.9	0
58	Microturbulent drift mode stability before internal transport barrier formation in the Alcator C-Mod radio frequency heated H-mode. Physics of Plasmas, 2005, 12, 072519.	1.9	9
59	Measurement of Turbulence Decorrelation during Transport Barrier Evolution in a High-Temperature Fusion Plasma. Physical Review Letters, 2005, 94, 135002.	7.8	60
60	Dynamics of turbulence spreading in magnetically confined plasmas. Physics of Plasmas, 2005, 12, 032303.	1.9	107
61	Zonal flows in plasma—a review. Plasma Physics and Controlled Fusion, 2005, 47, R35-R161.	2.1	1,682
62	Status of and prospects for advanced tokamak regimes from multi-machine comparisons using the International Tokamak Physics Activity database. Plasma Physics and Controlled Fusion, 2004, 46, A19-A34.	2.1	31
63	Turbulence spreading into the linearly stable zone and transport scaling. Plasma Physics and Controlled Fusion, 2004, 46, A323-A333.	2.1	185
64	Transport reduction by shear flows in dynamical models. Physics of Plasmas, 2004, 11, 4554-4558.	1.9	27
65	Turbulence spreading and transport scaling in global gyrokinetic particle simulations. Physics of Plasmas, 2004, 11, 1099-1108.	1.9	116
66	Size Scaling of Turbulent Transport in Magnetically Confined Plasmas. Physical Review Letters, 2002, 88, 195004.	7.8	210
67	Physics behind transport barrier theory and simulations. Plasma Physics and Controlled Fusion, 2002, 44, A87-A101.	2.1	84
68	Microturbulence and flow shear in high-performance JET ITB plasma. Plasma Physics and Controlled Fusion, 2002, 44, 1215-1228.	2.1	18
69	Eddy viscosity and laminarization of sheared flow in three dimensional reduced magnetohydrodynamic turbulence. Physics of Plasmas, 2001, 8, 3576-3582.	1.9	21
70	Shear-Alfvén waves in gyrokinetic plasmas. Physics of Plasmas, 2001, 8, 4435-4440.	1.9	65
71	Zonal flow measurements concept I. Plasma Physics and Controlled Fusion, 2000, 42, A205-A210.	2.1	101
72	Sheared-flow modes in toroidal geometry. Physics of Plasmas, 2000, 7, 588-595.	1.9	3

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73	Gyrokinetic simulations in general geometry and applications to collisional damping of zonal flows. <i>Physics of Plasmas</i> , 2000, 7, 1857-1862.	1.9	77
74	Local transport in Joint European Tokamak edge-localized, high-confinement mode plasmas with H, D, DT, and T isotopes. <i>Physics of Plasmas</i> , 2000, 7, 5038-5050.	1.9	35
75	Shearing rate of time-dependent $E\tilde{A}$ -B flow. <i>Physics of Plasmas</i> , 1999, 6, 922-926.	1.9	248
76	Effects of Collisional Zonal Flow Damping on Turbulent Transport. <i>Physical Review Letters</i> , 1999, 83, 3645-3648.	7.8	237
77	Bounce-averaged kinetic equations and neoclassical polarization density. <i>Physics of Plasmas</i> , 1999, 6, 188-199.	1.9	51
78	Turbulent Transport Reduction by Zonal Flows: Massively Parallel Simulations. , 1998, 281, 1835-1837.		870
79	Effects of profiles on transport reduction in DIII-D and TFTR. <i>Plasma Physics and Controlled Fusion</i> , 1998, 40, 657-660.	2.1	13
80	Sheared rotation effects on kinetic stability in enhanced confinement tokamak plasmas, and nonlinear dynamics of fluctuations and flows in axisymmetric plasmas. <i>Physics of Plasmas</i> , 1998, 5, 1815-1821.	1.9	28
81	Local transport barrier formation and relaxation in reverse-shear plasmas on the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1997, 4, 1736-1744.	1.9	109
82	Roles of Electric Field Shear and Shafranov Shift in Sustaining High Confinement in Enhanced Reversed Shear Plasmas on the TFTR Tokamak. <i>Physical Review Letters</i> , 1997, 78, 2972-2975.	7.8	119
83	Dynamics of Transition to Enhanced Confinement in Reversed Magnetic Shear Discharges. <i>Physical Review Letters</i> , 1997, 78, 1472-1475.	7.8	93
84	$E\tilde{A}$ -B shearing rate in quasisymmetric plasmas. <i>Physics of Plasmas</i> , 1997, 4, 4074-4078.	1.9	12
85	Turbulent Fluctuations in TFTR Configurations with Reversed Magnetic Shear. <i>Physical Review Letters</i> , 1996, 77, 3145-3148.	7.8	178
86	$E\tilde{A}$ -B flow shear effects on radial correlation length of turbulence and gyroradius scaling of confinement. <i>Physics of Plasmas</i> , 1996, 3, 427-429.	1.9	14
87	Nonlinear gyrokinetic equations for turbulence in core transport barriers. <i>Physics of Plasmas</i> , 1996, 3, 4658-4664.	1.9	112
88	Nonlinear theory of collisionless trapped ion modes. <i>Physics of Plasmas</i> , 1996, 3, 242-247.	1.9	29
89	The dynamics of marginality and self-organized criticality as a paradigm for turbulent transport. <i>Physics of Plasmas</i> , 1996, 3, 1858-1866.	1.9	209
90	Role of flow shear in enhanced core confinement regimes. <i>Plasma Physics and Controlled Fusion</i> , 1996, 38, 1427-1431.	2.1	20

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91	Nonlinear Saturation of Toroidal Alfvén Eigenmodes via Ion Compton Scattering. Physical Review Letters, 1995, 74, 266-269.	7.8	52
92	On the dynamics of turbulent transport near marginal stability. Physics of Plasmas, 1995, 2, 3640-3649.	1.9	330
93	Flow shear induced fluctuation suppression in finite aspect ratio shaped tokamak plasma. Physics of Plasmas, 1995, 2, 1648-1651.	1.9	548
94	ELM-related fluctuations in PBX-M H-modes. Plasma Physics and Controlled Fusion, 1994, 36, A135-A140.	2.1	9
95	Influence of radial electric field on Alfvén-type instabilities. Physics of Plasmas, 1994, 1, 2099-2100.	1.9	5
96	Rotation shear induced fluctuation decorrelation in a toroidal plasma. Physics of Plasmas, 1994, 1, 2940-2944.	1.9	99
97	Atomic physics effects on tokamak edge drift-tearing modes. Physics of Fluids B, 1993, 5, 3246-3251.	1.7	0
98	Three-dimensional hybrid gyrokinetic-magnetohydrodynamics simulation. Physics of Fluids B, 1992, 4, 2033-2037.	1.7	115
99	Flow-shear-induced Compton scattering of electron drift instability. Physics of Fluids B, 1992, 4, 2801-2806.	1.7	12
100	Atomic physics effects on dissipative toroidal drift wave stability. Physics of Fluids B, 1992, 4, 2567-2576.	1.7	13
101	Trapped particle dynamics in toroidally rotating plasmas. Physics of Fluids B, 1992, 4, 4046-4050.	1.7	7
102	Weak turbulence theory of collisionless trapped electron driven drift instability in tokamaks. Physics of Fluids B, 1991, 3, 989-999.	1.7	65
103	Nonlinear theory of trapped electron temperature gradient-driven turbulence in flat density H-mode plasmas. Physics of Fluids B, 1991, 3, 1445-1451.	1.7	13
104	The structure and dynamics of electrostatic and magnetostatic drift holes. Physics of Fluids B, 1990, 2, 2048-2063.	1.7	36
105	Weak turbulence theory of ion temperature gradient modes for inverted density plasmas. Physics of Fluids B, 1990, 2, 1815-1821.	1.7	11
106	Fluctuations and transport due to ion-temperature-gradient-driven instabilities. Physical Review Letters, 1990, 64, 2015-2018.	7.8	33
107	Theory of neoclassical resistivity gradient-driven turbulence. Physics of Fluids B, 1989, 1, 2172-2180.	1.7	5
108	Properties of ion temperature gradient drift instabilities in H-mode plasmas. Physics of Fluids B, 1989, 1, 1185-1192.	1.7	119

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109	Nonlinear gyrokinetic theory for finite-beta plasmas. <i>Physics of Fluids</i> , 1988, 31, 1940.	1.4	235
110	Nonlinear gyrokinetic equations for tokamak microturbulence. <i>Physics of Fluids</i> , 1988, 31, 2670-2673.	1.4	391
111	Neoclassical tearing modes in a tokamak. <i>Physics of Fluids</i> , 1988, 31, 3709.	1.4	19
112	Comment on "Anomalous electron heat transport driven by low-frequency electromagnetic turbulence". <i>Physical Review Letters</i> , 1988, 60, 966-966.	7.8	4
113	Role of impurity dynamics in resistivity-gradient-driven turbulence and tokamak edge plasma phenomena. <i>Physics of Fluids</i> , 1987, 30, 1452.	1.4	32
114	Resistive fluid turbulence in diverted tokamaks and the edge transport barrier in H-mode plasmas. <i>Physics of Fluids</i> , 1987, 30, 133.	1.4	53
115	Semicollisional drift-tearing modes in toroidal plasmas. <i>Physics of Fluids</i> , 1986, 29, 1891.	1.4	21
116	Linear stability of tearing modes. <i>Physics of Fluids</i> , 1986, 29, 3230.	1.4	83
117	Self-Consistency Constraints on Turbulent Magnetic Transport and Relaxation in a Collisionless Plasma. <i>Physical Review Letters</i> , 1986, 57, 1899-1902.	7.8	35
118	Dynamics and fluctuation spectra of electrostatic resistive interchange turbulence. <i>Physics of Fluids</i> , 1986, 29, 2871-2880.	1.4	10
119	Theory of semicollisional drift-interchange modes in cylindrical plasmas. <i>Physics of Fluids</i> , 1985, 28, 2432.	1.4	10
120	Theory of semicollisional kinetic Alfvén modes in sheared magnetic fields. <i>Physics of Fluids</i> , 1985, 28, 3061.	1.4	17
121	Forced magnetic reconnection. <i>Physics of Fluids</i> , 1985, 28, 2412.	1.4	225