Minping Wan

List of Publications by Year
in descending order

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118	4,643	101496	106281
papers	citations	36 h-index	65 g-index

118	118	118	2188
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A public turbulence database cluster and applications to study Lagrangian evolution of velocity increments in turbulence. Journal of Turbulence, 2008, 9, N31.	0.5	373
2	Coherent structures, intermittent turbulence, and dissipation in high-temperature plasmas. Physics of Plasmas, 2013, 20, .	0.7	290
3	The link between shocks, turbulence, and magnetic reconnection in collisionless plasmas. Physics of Plasmas, 2014, 21, .	0.7	217
4	Intermittent Dissipation at Kinetic Scales in Collisionless Plasma Turbulence. Physical Review Letters, 2012, 109, 195001.	2.9	155
5	Intermittency, nonlinear dynamics and dissipation in the solar wind and astrophysical plasmas. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140154.	1.6	141
6	Physical Mechanism of the Two-Dimensional Inverse Energy Cascade. Physical Review Letters, 2006, 96, 084502.	2.9	134
7	INTERMITTENT HEATING IN SOLAR WIND AND KINETIC SIMULATIONS. Astrophysical Journal Letters, 2013, 763, L30.	3.0	130
8	Energy transfer, pressure tensor, and heating of kinetic plasma. Physics of Plasmas, 2017, 24, .	0.7	115
9	Statistics of magnetic reconnection in two-dimensional magnetohydrodynamic turbulence. Physics of Plasmas, 2010, 17, .	0.7	113
10	Intermittency and Local Heating in the Solar Wind. Physical Review Letters, 2012, 108, 261102.	2.9	112
11	Kinetic energy transfer in compressible isotropic turbulence. Journal of Fluid Mechanics, 2018, 841, 581-613.	1.4	112
12	Intermittent Dissipation and Heating in 3D Kinetic Plasma Turbulence. Physical Review Letters, 2015, 114, 175002.	2.9	110
13	Magnetic reconnection as an element of turbulence. Nonlinear Processes in Geophysics, 2011, 18, 675-695.	0.6	96
14	Physical mechanism of the inverse energy cascade of two-dimensional turbulence: a numerical investigation. Journal of Fluid Mechanics, 2009, 619, 1-44.	1.4	88
15	Anisotropy in solar wind plasma turbulence. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140152.	1.6	88
16	Shear-driven Transition to Isotropically Turbulent Solar Wind Outside the AlfvÃ©n Critical Zone. Astrophysical Journal, 2020, 902, 94.	1.6	83
17	ASSOCIATION OF SUPRATHERMAL PARTICLES WITH COHERENT STRUCTURES AND SHOCKS. Astrophysical Journal Letters, 2013, 776, L8.	3.0	78
18	Intermittency, coherent structures and dissipation in plasma turbulence. Physics of Plasmas, 2016, 23, .	0.7	77

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19	von KÃ¡rmÃ¡n self-preservation hypothesis for magnetohydrodynamic turbulence and its consequences for universality. Journal of Fluid Mechanics, 2012, 697, 296-315.	1.4	67
20	Partial Variance of Increments Method in Solar Wind Observations and Plasma Simulations. Space Science Reviews, 2018, 214, 1.	3.7	67
21	Artificial neural network mixed model for large eddy simulation of compressible isotropic turbulence. Physics of Fluids, 2019, 31, .	1.6	66
22	Energy transfer channels and turbulence cascade in Vlasov-Maxwell turbulence. Physical Review E, 2017, 95, 061201.	0.8	63
23	Anisotropic Third-Moment Estimates of the Energy Cascade in Solar Wind Turbulence Using Multispacecraft Data. Physical Review Letters, 2011, 107, 165001.	2.9	61
24	von KÃ¡rmÃ¡n Energy Decay and Heating of Protons and Electrons in a Kinetic Turbulent Plasma. Physical Review Letters, 2013, 111, 121105.	2.9	57
25	Pathways to Dissipation in Weakly Collisional Plasmas. Astrophysical Journal, 2020, 891, 101.	1.6	56
26	In Situ Observation of Intermittent Dissipation at Kinetic Scales in the Earth's Magnetosheath. Astrophysical Journal Letters, 2018, 856, L19.	3.0	55
27	LOCAL ANISOTROPY, HIGHER ORDER STATISTICS, AND TURBULENCE SPECTRA. Astrophysical Journal, 2012, 750, 103.	1.6	50
28	NONLINEAR AND LINEAR TIMESCALES NEAR KINETIC SCALES IN SOLAR WIND TURBULENCE. Astrophysical Journal, 2014, 790, 155.	1.6	50
29	On the accuracy of simulations of turbulence. Physics of Plasmas, 2010, 17, 082308.	0.7	45
30	TURBULENCE AND PROTONâ€“ELECTRON HEATING IN KINETIC PLASMA. Astrophysical Journal Letters, 2016, 827, L7.	3.0	43
31	The third-order law for increments in magnetohydrodynamic turbulence with constant shear. Physics of Plasmas, 2009, 16, .	0.7	41
32	Scale dependence of energy transfer in turbulent plasma. Monthly Notices of the Royal Astronomical Society, 2019, 482, 4933-4940.	1.6	41
33	TRANSITION FROM KINETIC TO MHD BEHAVIOR IN A COLLISIONLESS PLASMA. Astrophysical Journal, 2015, 811, 112.	1.6	40
34	Forced synchronization of quasiperiodic oscillations in a thermoacoustic system. Journal of Fluid Mechanics, 2019, 879, 390-421.	1.4	39
35	Generation of X-points and secondary islands in 2D magnetohydrodynamic turbulence. Physics of Plasmas, 2013, 20, .	0.7	38
36	The third-order law for magnetohydrodynamic turbulence with shear: Numerical investigation. Physics of Plasmas, 2010, 17, .	0.7	37

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37	Energy cascade and its locality in compressible magnetohydrodynamic turbulence. Physical Review E, 2016, 93, 061102.	0.8	37
38	Charged Particle Diffusion in Isotropic Random Magnetic Fields. Astrophysical Journal, 2017, 837, 140.	1.6	37
39	Exploring the statistics of magnetic reconnection X-points in kinetic particle-in-cell turbulence. Physics of Plasmas, 2017, 24, .	0.7	37
40	Generation of non-Gaussian statistics and coherent structures in ideal magnetohydrodynamics. Physics of Plasmas, 2009, 16, .	0.7	34
41	DISSIPATION AND RECONNECTION IN BOUNDARY-DRIVEN REDUCED MAGNETOHYDRODYNAMICS. Astrophysical Journal, 2014, 797, 63.	1.6	32
42	Compressibility effect on coherent structures, energy transfer, and scaling in magnetohydrodynamic turbulence. Physics of Fluids, 2017, 29, .	1.6	32
43	Spectra and Mach number scaling in compressible homogeneous shear turbulence. Physics of Fluids, 2018, 30, .	1.6	31
44	Pressureâ€“Strain Interaction as the Energy Dissipation Estimate in Collisionless Plasma. Astrophysical Journal, 2022, 929, 142.	1.6	31
45	INVESTIGATION OF INTERMITTENCY IN MAGNETOHYDRODYNAMICS AND SOLAR WIND TURBULENCE: SCALE-DEPENDENT KURTOSIS. Astrophysical Journal, 2012, 744, 171.	1.6	30
46	Cascades of temperature and entropy fluctuations in compressible turbulence. Journal of Fluid Mechanics, 2019, 867, 195-215.	1.4	30
47	Effect of flow topology on the kinetic energy flux in compressible isotropic turbulence. Journal of Fluid Mechanics, 2020, 883, .	1.4	30
48	Effect of shock waves on the statistics and scaling in compressible isotropic turbulence. Physical Review E, 2018, 97, 043108.	0.8	29
49	Turbulent heating due to magnetic reconnection. Physics of Plasmas, 2018, 25, .	0.7	29
50	Effects of compressibility and Atwood number on the single-mode Rayleigh-Taylor instability. Physics of Fluids, 2020, 32, 012110.	1.6	29
51	Multiple states in turbulent plane Couette flow with spanwise rotation. Journal of Fluid Mechanics, 2018, 837, 477-490.	1.4	28
52	EFFECT OF COHERENT STRUCTURES ON ENERGETIC PARTICLE INTENSITY IN THE SOLAR WIND AT 1 AU. Astrophysical Journal, 2015, 812, 68.	1.6	27
53	Effect of wall temperature on the kinetic energy transfer in a hypersonic turbulent boundary layer. Journal of Fluid Mechanics, 2021, 929, .	1.4	26
54	Low-order modelling of wake meandering behind turbines. Journal of Fluid Mechanics, 2019, 877, 534-560.	1.4	25

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55	Dissipation-energy flux correlations as evidence for the Lagrangian energy cascade in turbulence. Physics of Fluids, 2010, 22, .	1.6	24
56	Finite Dissipation in Anisotropic Magnetohydrodynamic Turbulence. Physical Review X, 2018, 8, .	2.8	24
57	A modified optimal LES model for highly compressible isotropic turbulence. Physics of Fluids, 2018, 30, 065108.	1.6	24
58	Effects of bulk viscosity on compressible homogeneous turbulence. Physics of Fluids, 2019, 31, .	1.6	24
59	Spatially multi-scale artificial neural network model for large eddy simulation of compressible isotropic turbulence. AIP Advances, 2020, 10, .	0.6	24
60	Compressibility effect in hypersonic boundary layer with isothermal wall condition. Physical Review Fluids, 2021, 6, .	1.0	24
61	ON THE ORIGIN OF ANISOTROPY IN MAGNETOHYDRODYNAMIC TURBULENCE: THE ROLE OF HIGHER-ORDER CORRELATIONS. Astrophysical Journal, 2013, 768, 10.	1.6	23
62	Effect of compressibility on small scale statistics in homogeneous shear turbulence. Physics of Fluids, 2019, 31, 025107.	1.6	23
63	DIRECTIONAL ALIGNMENT AND NON-GAUSSIAN STATISTICS IN SOLAR WIND TURBULENCE. Astrophysical Journal, 2011, 741, 75.	1.6	22
64	Spatial artificial neural network model for subgrid-scale stress and heat flux of compressible turbulence. Theoretical and Applied Mechanics Letters, 2020, 10, 27-32.	1.3	22
65	Is the Kelvin Theorem Valid for High Reynolds Number Turbulence?. Physical Review Letters, 2006, 97, 144505.	2.9	20
66	On the spatio-temporal behavior of magnetohydrodynamic turbulence in a magnetized plasma. Physics of Plasmas, 2016, 23, .	0.7	20
67	Local modulation and trapping of energetic particles by coherent magnetic structures. Geophysical Research Letters, 2016, 43, 3620-3627.	1.5	20
68	Role of magnetic field curvature in magnetohydrodynamic turbulence. Physics of Plasmas, 2019, 26, .	0.7	20
69	COMPLEXITY AND DIFFUSION OF MAGNETIC FLUX SURFACES IN ANISOTROPIC TURBULENCE. Astrophysical Journal, 2014, 785, 56.	1.6	17
70	Effect of compressibility on the local flow topology in homogeneous shear turbulence. Physics of Fluids, 2020, 32, 015118.	1.6	17
71	Hydrodynamic performance of an unconstrained flapping swimmer with flexible fin: A numerical study. Physics of Fluids, 2022, 34, .	1.6	17
72	Lewis number and preferential diffusion effects in lean hydrogenâ€“air highly turbulent flames. Physics of Fluids, 2022, 34, .	1.6	17

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73	Linear-model-based estimation in wall turbulence: improved stochastic forcing and eddy viscosity terms. Journal of Fluid Mechanics, 2021, 925, .	1.4	16
74	Flow structures and kinetic-potential exchange in forced rotating stratified turbulence. Physical Review Fluids, 2020, 5, .	1.0	16
75	Uniform-momentum zones in a turbulent pipeÂflow. Journal of Fluid Mechanics, 2020, 884, .	1.4	15
76	VARIANCE ANISOTROPY IN KINETIC PLASMAS. Astrophysical Journal, 2016, 824, 44.	1.6	14
77	Variance anisotropy in compressible 3â€Ð MHD. Journal of Geophysical Research: Space Physics, 2016, 121, 5041-5054.	0.8	14
78	A hybrid scheme for compressible magnetohydrodynamic turbulence. Journal of Computational Physics, 2016, 306, 73-91.	1.9	14
79	A novel solver for simulation of flows from continuum regime to rarefied regime at moderate Knudsen number. Journal of Computational Physics, 2020, 415, 109548.	1.9	14
80	Evolution of similarity lengths in anisotropic magnetohydrodynamic turbulence. Journal of Fluid Mechanics, 2019, 876, 5-18.	1.4	12
81	The effects of caudal fin's bending stiffness on a self-propelled carangiform swimmer. Physics of Fluids, 2022, 34, .	1.6	12
82	Local relaxation and maximum entropy in two-dimensional turbulence. Physics of Fluids, 2010, 22, .	1.6	10
83	A review of relaxation and structure in some turbulent plasmas: magnetohydrodynamics and related models. Journal of Turbulence, 2012, 13, N37.	0.5	10
84	Explicit formulations of G13-based gas kinetic flux solver (G13-GKFS) for simulation of continuum and rarefied flows. Physics of Fluids, 2021, 33, .	1.6	10
85	Constrained large-eddy simulation of turbulent flow over inhomogeneous rough surfaces. Theoretical and Applied Mechanics Letters, 2021, 11, 100229.	1.3	9
86	Hysteresis behavior in spanwise rotating plane Couette flow with varying rotation rates. Physical Review Fluids, 2019, 4, .	1.0	9
87	Transitional regimes, zones and internal shear layers in turbulent pipe flows at Reynolds numbers up to <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si136.svg"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="italic">Re</mml:mi></mml:mrow><mml:mrow><mml:mi>Ï„</mml:mi></mml:mrow></mml:msub><mml:mo linebreak="goebreak" linebreakstyle="after">=</mml:mo><mml:mn>1000</mml:mn></mml:mrow></mml:math>. International	1.1	8
88	A DNS study of extreme and leading points in lean hydrogen-air turbulent flames - part II: Local velocity field and flame topology. Combustion and Flame, 2022, 235, 111712.	2.8	8
89	Role of the large-scale structures in spanwise rotating plane Couette flow with multiple states. Physical Review Fluids, 2019, 4, .	1.0	8
90	Vibrational relaxation in compressible isotropic turbulence with thermal nonequilibrium. Physical Review Fluids, 2020, 5, .	1.0	8

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91	Energy budget in decaying compressible MHD turbulence. Journal of Fluid Mechanics, 2021, 916, .	1.4	7
92	A numerical support of leading point concept. International Journal of Hydrogen Energy, 2022, 47, 23444-23461.	3.8	7
93	A DNS study of extreme and leading points in lean hydrogen-air turbulent flames â€“ Part I: Local thermochemical structure and reaction rates. Combustion and Flame, 2022, 235, 111716.	2.8	6
94	Reynolds number dependence of heavy particles clustering in homogeneous isotropic turbulence. Physical Review Fluids, 2020, 5, .	1.0	6
95	Constrained large-eddy simulation of turbulent flow over rough walls. Physical Review Fluids, 2021, 6, .	1.0	5
96	An Approximate Second-Order Closure Model for Large-Eddy Simulation of Compressible Isotropic Turbulence. Communications in Computational Physics, 2020, 27, 775-808.	0.7	5
97	Evidence for Raupach et al.'s mixing-layer analogy in deep homogeneous urban-canopy flows. Journal of Fluid Mechanics, 2022, 944, .	1.4	5
98	Numerical investigation of plane Couette flow with weak spanwise rotation. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1.	2.0	4
99	Statistical properties of solar wind discontinuities, intermittent turbulence, and rapid emergence of non-Gaussian distributions. AIP Conference Proceedings, 2010, , .	0.3	3
100	GENERATING SYNTHETIC MAGNETIC FIELD INTERMITTENCY USING A MINIMAL MULTISCALE LAGRANGIAN MAPPING APPROACH. Astrophysical Journal, 2014, 796, 97.	1.6	3
101	Dynamic patterns of self-organization inflow in collisionless magnetic reconnection. Astrophysics and Space Science, 2019, 364, 1.	0.5	3
102	Flow structures, nonlinear inertial waves and energy transfer in rotating spheres. Theoretical and Applied Mechanics Letters, 2021, 11, 100312.	1.3	3
103	Physical Regimes of Two-dimensional MHD Turbulent Reconnection in Different Lundquist Numbers. Astrophysical Journal, 2022, 926, 97.	1.6	3
104	Effects of Lewis and Karlovitz numbers on transport equations for turbulent kinetic energy and enstrophy. Acta Mechanica Sinica/Lixue Xuebao, 2022, 38, .	1.5	3
105	Identifying the pattern of breakdown in a laminar-turbulent transition via binary sequence statistics and cellular-automaton simulations. Physical Review E, 2019, 100, 023110.	0.8	2
106	Effects of Forcing Mechanisms on the Multiscale Properties of Magnetohydrodynamics. Astrophysical Journal, 2021, 909, 175.	1.6	2
107	Spectral energy transfers and kinetic-potential energy exchange in rotating stratified turbulence. Physical Review Fluids, 2020, 5, .	1.0	2
108	Properties of magnetic reconnection in MHD turbulence. , 2010, , .		1

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109	Subgrid-scale structure and fluxes of turbulence underneath a surface wave. Journal of Fluid Mechanics, 2019, 878, 768-795.	1.4	1
110	A Ginzburgâ€“Landau model for linear global modes in open shear flows. Journal of Fluid Mechanics, 2020, 904, .	1.4	1
111	The third-order law for magnetohydrodynamic turbulence with constant shear. , 2010, , .		0
112	Overview on numerical studies of reconnection and dissipation in the solar wind. , 2013, , .		0
113	Solar wind fluctuations and the von Kàrmàn–Howarth equations: The role of fourth-order correlations. , 2013, , .		0
114	Special Topic on Selected Papers from the 11th National Congress on Fluid Mechanics of China. Physics of Fluids, 2021, 33, 090402.	1.6	0
115	The interpretation of data from the Parker Solar Probe mission: shear-driven transition to an isotropically turbulent solar wind. Radiation Effects and Defects in Solids, 2020, 175, 1002-1003.	0.4	0
116	10.1063/5.0077312.1. , 2022, , .		0
117	Acceleration statistics of tracer and light particles in compressible homogeneous isotropic turbulence. Journal of Fluid Mechanics, 2022, 935, .	1.4	0
118	The instability of a helical vortex filament under a free surface. Journal of Fluid Mechanics, 2022, 937, .	1.4	0