

Wouter J T Bos

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

910
citations

471061

17
h-index

552369

26
g-index

86
all docs

86
docs citations

86
times ranked

552
citing authors

#	ARTICLE	IF	CITATIONS
1	Spectral imbalance and the normalized dissipation rate of turbulence. <i>Physics of Fluids</i> , 2007, 19, 045101.	1.6	71
2	Reynolds number effect on the velocity increment skewness in isotropic turbulence. <i>Physics of Fluids</i> , 2012, 24, .	1.6	50
3	Dynamics of spectrally truncated inviscid turbulence. <i>Physics of Fluids</i> , 2006, 18, 071701.	1.6	39
4	Quasi-static magnetohydrodynamic turbulence at high Reynolds number. <i>Journal of Fluid Mechanics</i> , 2011, 681, 434-461.	1.4	38
5	Dissipation in unsteady turbulence. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	37
6	On the behavior of the velocity-scalar cross correlation spectrum in the inertial range. <i>Physics of Fluids</i> , 2004, 16, 3818-3823.	1.6	34
7	Reynolds number dependency of the scalar flux spectrum in isotropic turbulence with a uniform scalar gradient. <i>Physics of Fluids</i> , 2005, 17, 125108.	1.6	33
8	Small-scale intermittency in anisotropic turbulence. <i>Physical Review E</i> , 2007, 76, 046310.	0.8	28
9	Reduction of mean-square advection in turbulent passive scalar mixing. <i>Physics of Fluids</i> , 2012, 24, .	1.6	23
10	Inertial range scaling of scalar flux spectra in uniformly sheared turbulence. <i>Physics of Fluids</i> , 2007, 19, 025104.	1.6	22
11	Lagrangian statistics and flow topology in forced two-dimensional turbulence. <i>Physical Review E</i> , 2011, 83, 036314.	0.8	21
12	Zonal flow generation and its feedback on turbulence production in drift wave turbulence. <i>Physics of Plasmas</i> , 2013, 20, .	0.7	21
13	Extreme Lagrangian Acceleration in Confined Turbulent Flow. <i>Physical Review Letters</i> , 2008, 100, 184503.	2.9	20
14	Simulation of confined magnetohydrodynamic flows with Dirichlet boundary conditions using a pseudo-spectral method with volume penalization. <i>Journal of Computational Physics</i> , 2014, 274, 64-94.	1.9	20
15	A single-time two-point closure based on fluid particle displacements. <i>Physics of Fluids</i> , 2006, 18, 031706.	1.6	18
16	Rapid Generation of Angular Momentum in Bounded Magnetized Plasma. <i>Physical Review Letters</i> , 2008, 101, 235003.	2.9	18
17	On the strength of the nonlinearity in isotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2013, 733, 158-170.	1.4	18
18	Small scale response and modeling of periodically forced turbulence. <i>Physics of Fluids</i> , 2007, 19, 055107.	1.6	17

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19	The role of coherent vorticity in turbulent transport in resistive drift-wave turbulence. <i>Physics of Plasmas</i> , 2008, 15, .	0.7	16
20	Short-time evolution of Lagrangian velocity gradient correlations in isotropic turbulence. <i>Physics of Fluids</i> , 2015, 27, .	1.6	16
21	On the structure and dynamics of sheared and rotating turbulence: Anisotropy properties and geometrical scale-dependent statistics. <i>Physics of Fluids</i> , 2010, 22, .	1.6	14
22	A pseudo-spectral method with volume penalisation for magnetohydrodynamic turbulence in confined domains. <i>Computer Physics Communications</i> , 2011, 182, 2-7.	3.0	14
23	Lagrangian Markovianized field approximation for turbulence. <i>Journal of Turbulence</i> , 2013, 14, 99-120.	0.5	14
24	On the anisotropy of the turbulent passive scalar in the presence of a mean scalar gradient. <i>Journal of Fluid Mechanics</i> , 2014, 744, 38-64.	1.4	14
25	Assessing the nonequilibrium of decaying turbulence with reversed initial fields. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	14
26	Intrinsic Rotation of Toroidally Confined Magnetohydrodynamics. <i>Physical Review Letters</i> , 2012, 109, 175002.	2.9	13
27	Flow dynamics and magnetic induction in the von-Kármán plasma experiment. <i>Journal of Plasma Physics</i> , 2015, 81, .	0.7	13
28	Angular Statistics of Lagrangian Trajectories in Turbulence. <i>Physical Review Letters</i> , 2015, 114, 214502.	2.9	13
29	Generation of Atmospheric Turbulence with Unprecedentedly Large Reynolds Number in a Wind Tunnel. <i>Physical Review Letters</i> , 2020, 125, 154503.	2.9	13
30	Inertial range scaling of the scalar flux spectrum in two-dimensional turbulence. <i>Physics of Fluids</i> , 2009, 21, 115105.	1.6	12
31	Corrections to the scaling of the second-order structure function in isotropic turbulence. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2010, 26, 151-157.	1.5	12
32	Cascades of energy and helicity in axisymmetric turbulence. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	12
33	The decay of magnetohydrodynamic turbulence in a confined domain. <i>Physics of Plasmas</i> , 2008, 15, 092304.	0.7	11
34	Origin of Lagrangian Intermittency in Drift-Wave Turbulence. <i>Physical Review Letters</i> , 2010, 105, 145001.	2.9	11
35	Production and dissipation of kinetic energy in grid turbulence. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	11
36	Large-scale bottleneck effect in two-dimensional turbulence. <i>Journal of Turbulence</i> , 2009, 10, N30.	0.5	10

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37	Coherent vorticity extraction in resistive drift-wave turbulence: Comparison of orthogonal wavelets versus proper orthogonal decomposition. <i>Comptes Rendus Physique</i> , 2011, 12, 123-131.	0.3	10
38	Three-dimensional turbulence without vortex stretching. <i>Journal of Fluid Mechanics</i> , 2021, 915, .	1.4	10
39	Direct numerical simulation of axisymmetric turbulence. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	10
40	Power fluctuations in turbulence. <i>Physical Review Letters</i> , 2019, 122, 124504.	2.9	8
41	Self-organization and symmetry-breaking in two-dimensional plasma turbulence. <i>Physics of Plasmas</i> , 2010, 17, 092302.	0.7	7
42	Developing homogeneous isotropic turbulence. <i>Physica D: Nonlinear Phenomena</i> , 2012, 241, 232-236.	1.3	7
43	The effect of toroidicity on reversed field pinch dynamics. <i>Plasma Physics and Controlled Fusion</i> , 2014, 56, 095024.	0.9	7
44	Staircase scaling of short-time energy transfer in turbulence. <i>Journal of Turbulence</i> , 2020, 21, 234-242.	0.5	7
45	Depletion of nonlinearity in two-dimensional turbulence. <i>Physics of Fluids</i> , 2014, 26, 115102.	1.6	6
46	On the unsteady behavior of turbulence models. <i>Physics of Fluids</i> , 2009, 21, 041701.	1.6	5
47	Spontaneous generation and reversal of helicity in anisotropic turbulence. <i>Physical Review E</i> , 2021, 103, L061101.	0.8	5
48	Scaling laws in axisymmetric magnetohydrodynamic duct flows. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	5
49	Transition from non-swirling to swirling axisymmetric turbulence. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	5
50	Directional change of fluid particles in two-dimensional turbulence and of football players. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	5
51	Influence of initial mean helicity on homogeneous turbulent shear flow. <i>Physical Review E</i> , 2011, 84, 056319.	0.8	4
52	The temperature spectrum generated by frictional heating in isotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2014, 746, 85-98.	1.4	4
53	On the scaling of temperature fluctuations induced by frictional heating. <i>Physics of Fluids</i> , 2015, 27, 095105.	1.6	4
54	Structure of sheared and rotating turbulence: Multiscale statistics of Lagrangian and Eulerian accelerations and passive scalar dynamics. <i>Physical Review E</i> , 2016, 93, 013113.	0.8	4

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55	On the role and value of $\langle \hat{v}^2 \rangle$ in incompressible MHD simulations. Physics of Plasmas, 2018, 25, .	0.7	4
56	On helical multiscale characterization of homogeneous turbulence. Journal of Turbulence, 2012, 13, N35.	0.5	3
57	Dynamic equilibria and magnetohydrodynamic instabilities in toroidal plasmas with non-uniform transport coefficients. Physics of Plasmas, 2015, 22, 052503.	0.7	3
58	Magnetohydrodynamically generated velocities in confined plasma. Physics of Plasmas, 2015, 22, .	0.7	3
59	Mixing in modulated turbulence. Analytical results. Computers and Fluids, 2017, 151, 102-107.	1.3	3
60	Passive scalar mixing in modulated turbulence. Fluid Dynamics Research, 2019, 51, 045501.	0.6	3
61	Linearly forced isotropic turbulence at low Reynolds numbers. Physical Review E, 2020, 102, 033105.	0.8	3
62	Statistical mechanics of the Euler equations without vortex stretching. Journal of Fluid Mechanics, 2021, 929, .	1.4	3
63	Quasi-static magnetohydrodynamic turbulence at high Reynolds number. Journal of Physics: Conference Series, 2011, 318, 072026.	0.3	2
64	Self-organization of helically forced MHD flow in confined cylindrical geometries. Fluid Dynamics Research, 2014, 46, 061422.	0.6	2
65	Efficiency of laminar and turbulent mixing in wall-bounded flows. Physical Review E, 2020, 101, 043104.	0.8	2
66	Modeling the role of clusters and diffusion in the evolution of COVID-19 infections during lock-down. Computational Mechanics, 2021, 67, 1485-1496.	2.2	2
67	The influence of walls on Lagrangian statistics in two-dimensional turbulence. Physics of Fluids, 2011, 23, 085111.	1.6	1
68	Reynolds and Prandtl number scaling of viscous heating in isotropic turbulence. Physical Review Fluids, 2017, 2, .	1.0	1
69	Time-reversibility of Navier-Stokes turbulence and its implication for subgrid-scale models. ERCOFTAC Series, 2011, , 39-44.	0.1	1
70	Lagrangian statistics of two-dimensional turbulence in a square container. Springer Proceedings in Physics, 2009, , 35-38.	0.1	0
71	Depletion of advection in turbulent scalar mixing. Journal of Physics: Conference Series, 2011, 318, 052037.	0.3	0
72	Influence of flow topology on Lagrangian statistics in two-dimensional turbulence. Journal of Physics: Conference Series, 2011, 318, 052032.	0.3	0

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73	Helical Properties of Sheared and Rotating Turbulence. Journal of Physics: Conference Series, 2011, 318, 082025.	0.3	0
74	Dependence of turbulent advection on the Lagrangian correlation time. Physical Review E, 2015, 91, 043020.	0.8	0
75	Transition from axisymmetric to three-dimensional turbulence. Journal of Turbulence, 2021, 22, 481-496.	0.5	0
76	Lagrangian intermittency and time-correlations in two-dimensional turbulence. Springer Proceedings in Physics, 2009, , 737-740.	0.1	0
77	Spin-up in MHD turbulence. Springer Proceedings in Physics, 2009, , 821-824.	0.1	0
78	Depression of Nonlinearity and Advection in Isotropic Turbulence. Springer Proceedings in Physics, 2014, , 33-36.	0.1	0
79	The effect of a finite cascade time on the normalized energy dissipation. , 2007, , 23-25.		0
80	Effect of shaping on turbulent dynamics in reversed-field pinch simulations. Journal of Plasma Physics, 2021, 87, .	0.7	0
81	The dynamo properties of the reversed field pinch velocity field. Physics of Plasmas, 2022, 29, 032306.	0.7	0