Peter Frick

List of Publications by Year
in descending order

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110 papers	2,305 citations	185998 28 h-index	253896 43 g-index
110 all docs	110 docs citations	110 times ranked	1394 citing authors

#	Article	IF	Citations
1	Shell models of magnetohydrodynamic turbulence. Physics Reports, 2013, 523, 1-60.	10.3	111
2	Time scales and trends in the central England temperature data (1659-1990): A wavelet analysis. Geophysical Research Letters, 1997, 24, 1351-1354.	1.5	108
3	Cascade and dynamo action in a shell model of magnetohydrodynamic turbulence. Physical Review E, 1998, 57, 4155-4164.	0.8	88
4	Structures in the rotation measure sky. Monthly Notices of the Royal Astronomical Society, 2001, 325, 649-664.	1.6	84
5	Wavelet Analysis of Stellar Chromospheric Activity Variations. Astrophysical Journal, 1997, 483, 426-434.	1.6	80
6	Scaling and correlation analysis of galactic images. Monthly Notices of the Royal Astronomical Society, 2001, 327, 1145-1157.	1.6	72
7	Hindered Energy Cascade in Highly Helical Isotropic Turbulence. Physical Review Letters, 2015, 115, 234501.	2.9	64
8	Analysis of spiral arms using anisotropic wavelets: gas, dust and magnetic fields in Mâ€‰51. Astronomy and Astrophysics, 2006, 458, 441-452.	2.1	62
9	Multi-scale radio-infrared correlations in M 31 and M 33: The role of magnetic fields and star formation. Astronomy and Astrophysics, 2013, 557, A129.	2.1	58
10	Wavelet-based Correlations of Skin Temperature and Blood Flow Oscillations. Cardiovascular Engineering (Dordrecht, Netherlands), 2008, 8, 185-189.	1.0	57
11	Wavelet analysis of signals with gaps. Journal of Mathematical Physics, 1998, 39, 4091-4107.	0.5	52
12	Magnetic field structures of galaxies derived from analysis ofÂFaraday rotation measures, and perspectives for the SKA. Astronomy and Astrophysics, 2008, 480, 45-59.	2.1	45
13	Turbulent convective heat transfer in a long cylinder with liquid sodium. Europhysics Letters, 2015, 109, 14002.	0.7	44
14	Induction, helicity, and alpha effect in a toroidal screw flow of liquid gallium. Physical Review E, 2006, 73, 046310.	0.8	43
15	Faraday rotation measure synthesis for magnetic fields of galaxies. Monthly Notices of the Royal Astronomical Society, 2011, 414, 2540-2549.	1.6	43
16	Quantifying the correlation between photoplethysmography and laser Doppler flowmetry microvascular low-frequency oscillations. Journal of Biomedical Optics, 2015, 20, 037007.	1.4	43
17	Magnetic and optical spiral arms in the galaxy NGC 6946. Monthly Notices of the Royal Astronomical Society, 2000, 318, 925-937.	1.6	42
18	High Rayleigh number convection in a cubic cell with adiabatic sidewalls. International Journal of Heat and Mass Transfer, 2016, 102, 201-212.	2.5	41

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19	Recognizing magnetic structures by present and future radio telescopes with Faraday rotation measure synthesis. Astronomy and Astrophysics, 2012, 543, A113.	2.1	40
20	Mixed Convection in Pipe and Duct Flows With Strong Magnetic Fields. Applied Mechanics Reviews, 2021, 73, .	4.5	40
21	Scaling properties of numerical two-dimensional turbulence. Physical Review E, 1995, 52, 3719-3729.	0.8	39
22	Skin temperature variations as a tracer of microvessel tone. Biomedical Signal Processing and Control, 2015, 21, 1-7.	3.5	39
23	Wavelet-based Faraday rotation measure synthesis. Monthly Notices of the Royal Astronomical Society: Letters, 2010, 401, L24-L28.	1.2	37
24	Statistical mechanics of shell models for two-dimensional turbulence. Physical Review E, 1994, 50, 4705-4715.	0.8	36
25	Dynamos: from an astrophysical model to laboratory experiments. Physics-Uspekhi, 2014, 57, 292-311.	0.8	36
26	Magnetic and gaseous spiral arms in M83. Astronomy and Astrophysics, 2016, 585, A21.	2.1	31
27	Thermal convection of liquid sodium in inclined cylinders. Physical Review Fluids, 2018, 3, .	1.0	30
28	Scaling properties of a class of shell models. Physical Review E, 1995, 51, 5582-5593.	0.8	29
29	The influence of the cell inclination on the heat transport and large-scale circulation in liquid metal convection. Journal of Fluid Mechanics, 2020, 884, .	1.4	29
30	Direct Measurement of Effective Magnetic Diffusivity in Turbulent Flow of Liquid Sodium. Physical Review Letters, 2010, 105, 184502.	2.9	28
31	Screw dynamo in a time-dependent pipe flow. Physical Review E, 2003, 67, 056309.	0.8	27
32	Advantage of wavelet technique to highlight the observed geomagnetic perturbations linked to the Chilean tsunami (2010). Journal of Geophysical Research: Space Physics, 2014, 119, 3077-3093.	0.8	27
33	Large- and small-scale interactions and quenching in anÎ±2-dynamo. Physical Review E, 2006, 74, 066310.	0.8	26
34	Characteristics of solar diurnal variations: A case study based on records from the ground magnetic station at Vassouras, Brazil. Journal of Atmospheric and Solar-Terrestrial Physics, 2013, 92, 124-136.	0.6	25
35	Turbulent convective heat transfer in an inclined tube filled with sodium. Technical Physics, 2015, 60, 1305-1309.	0.2	25
36	Lifetime of Surface Features and Stellar Rotation: A Wavelet Time-Frequency Approach. Astrophysical Journal, 1999, 510, L135-L138.	1.6	22

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37	Some properties of two-dimensional inverse energy cascade dynamics. Physical Review E, 1997, 55, 2693-2706.	0.8	21
38	Anharmonic and standing dynamo waves: theory and observation of stellar magnetic activity. Monthly Notices of the Royal Astronomical Society, 2006, 365, 181-190.	1.6	21
39	Laboratory study of differential rotation in a convective rotating layer. Geophysical and Astrophysical Fluid Dynamics, 2010, 104, 349-368.	0.4	21
40	Reversals of large-scale circulation in turbulent convection in rectangular cavities. JETP Letters, 2011, 93, 330-334.	0.4	21
41	Thermal convection of liquid metal in a long inclined cylinder. Physical Review Fluids, 2017, 2, .	1.0	21
42	Transient flows and reorientations of large-scale convection in a cubic cell. International Communications in Heat and Mass Transfer, 2019, 108, 104319.	2.9	20
43	Time-spectra of chromospheric activity of old solar-type stars: detection of rotational signals from double wavelet analysis. New Astronomy, 2004, 9, 599-609.	0.8	19
44	Measurements of turbulent magnetic diffusivity in a liquid-gallium flow. JETP Letters, 2008, 88, 167-171.	0.4	17
45	Hierarchical tree-model of 2D-turbulence. Physica D: Nonlinear Phenomena, 1994, 72, 95-109.	1.3	16
46	Dynamics of a turbulent spin-down flow inside a torus. Physics of Fluids, 2009, 21, 045108.	1.6	16
47	The cross-helicity effect on cascade processes in MHD turbulence. Doklady Physics, 2009, 54, 93-97.	0.2	15
48	Spectral characteristic of mid-term quasi-periodicities in sunspot data. Monthly Notices of the Royal Astronomical Society, 2020, 491, 5572-5578.	1.6	15
49	Evolution of a strong electrovortex flow in a cylindrical cell. Physical Review Fluids, 2020, 5, .	1.0	15
50	Magnetic field rotation in the screw gallium flow. European Physical Journal B, 2004, 41, 561-568.	0.6	14
51	Temperature fluctuations in a nonisothermal mercury pipe flow affected by a strong transverse magnetic field. International Journal of Heat and Mass Transfer, 2018, 127, 566-572.	2.5	14
52	Wavelet tomography of the Galactic magnetic field. Astronomy and Astrophysics, 2002, 391, 361-368.	2.1	14
53	Spectral properties of helical turbulence. Fluid Dynamics, 2009, 44, 658-666.	0.2	13
54	Turbulent viscosity and turbulent magnetic diffusivity in a decaying spin-down flow of liquid sodium. Physical Review E, 2012, 85, 016303.	0.8	13

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55	Thermal convection of liquid metal in the titanium reduction reactor. IOP Conference Series: Materials Science and Engineering, 2017, 208, 012041.	0.3	13
56	The study of turbulence in MHD flow generated by rotating and traveling magnetic fields. Experiments in Fluids, 2015, 56, 1.	1.1	12
57	Detection of Endothelial Dysfunction Using Skin Temperature Oscillations Analysis During Local Heating inÂPatients With Peripheral Arterial Disease. Microcirculation, 2016, 23, 406-415.	1.0	12
58	Binary tree models of high-Reynolds-number turbulence. Physical Review E, 1997, 56, 1692-1698.	0.8	11
59	JOINT INVERSE CASCADE OF MAGNETIC ENERGY AND MAGNETIC HELICITY IN MHD TURBULENCE. Astrophysical Journal Letters, 2015, 798, L35.	3.0	11
60	Relationship of oscillating and average components of laser Doppler flowmetry signal. Journal of Biomedical Optics, 2016, 21, 085002.	1.4	11
61	Inductive System for Reliable Magnesium Level Detection in a Titanium Reduction Reactor. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 2089-2096.	1.0	11
62	Experimental study of liquid metal heat transfer in a vertical duct affected by coplanar magnetic field: Downward flow. International Journal of Heat and Mass Transfer, 2019, 143, 118529.	2.5	11
63	On Spectral Laws of 2D Turbulence in Shell Models. Europhysics Letters, 1993, 24, 725-730.	0.7	10
64	Long-term free decay of MHD turbulence. Europhysics Letters, 2010, 92, 34007.	0.7	10
65	Wavelet analysis of the long-term activity of V833 Tau. Monthly Notices of the Royal Astronomical Society, 2020, 495, 3788-3794.	1.6	10
66	Limits of strong magneto-convective fluctuations in liquid metal flow in a heated vertical pipe affected by a transverse magnetic field. International Journal of Thermal Sciences, 2021, 161, 106773.	2.6	10
67	Turbulent convective heat transfer in an inclined tube with liquid sodium. Magnetohydrodynamics, 2015, 51, 329-336.	0.5	10
68	Beat-to-beat cardiovascular hemodynamic parameters based on wavelet spectrogram of impedance data. Biomedical Signal Processing and Control, 2017, 36, 50-56.	3.5	9
69	Local Heating Test for Detection of Microcirculation Abnormalities in Patients with Diabetes-Related Foot Complications. Advances in Skin and Wound Care, 2017, 30, 158-166.	0.5	9
70	Natural convection in a liquid metal locally heated from above. IOP Conference Series: Materials Science and Engineering, 2017, 208, 012044.	0.3	9
71	Combined grid-shell approach for convection in a rotating spherical layer. Europhysics Letters, 2002, 59, 212-217.	0.7	8
72	Numerical study of molten magnesium convection in a titanium reduction apparatus. Journal of Applied Mechanics and Technical Physics, 2016, 57, 1264-1275.	0.1	8

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73	Numerical simulations of convection in the titanium reduction reactor. Journal of Physics: Conference Series, 2017, 891, 012076.	0.3	8
74	Skin blood flow and temperature oscillations during cold pressor test. , 2015, 2015, 7382-5.		7
75	Generating a tide-like flow in a cylindrical vessel by electromagnetic forcing. Physics of Fluids, 2020, 32, .	1.6	7
76	Long-time behavior of MHD shell models. Europhysics Letters, 2000, 52, 539-544.	0.7	6
77	A multi-scale disk dynamo model. Astronomische Nachrichten, 2006, 327, 481-482.	0.6	6
78	Early differential diagnosis of the severity of acute pancreatitis. Journal of Clinical Monitoring and Computing, 2017, 31, 1289-1297.	0.7	6
79	Experimental study of liquid metal heat transfer in a vertical duct affected by coplanar magnetic field: Upward flow. International Journal of Heat and Mass Transfer, 2020, 156, 119746.	2.5	6
80	A Nonstationary Dynamo Experiment in a Braked Torus. , 2001, , 1-8.		5
81	Title is missing!. European Physical Journal B, 2002, 25, 399-402.	0.6	5
82	Direct measurement of effective electro conductivity of turbulent liquid metal. Astronomische Nachrichten, 2008, 329, 706-708.	0.6	4
83	The screw dynamo in a thick torus. Astronomische Nachrichten, 2011, 332, 11-16.	0.6	4
84	Transition from hydrodynamic turbulence to magnetohydrodynamic turbulence in von KÃ¡rmÃ¡n flows. Journal of Fluid Mechanics, 2012, 693, 243-260.	1.4	4
85	Combining Faraday Tomography and Wavelet Analysis. Galaxies, 2018, 6, 121.	1.1	4
86	Lymphocyte Nucleus Reconstruction via Wavelet Tomography. Journal of Biomedical Optics, 1999, 4, 376.	1.4	3
87	Shell models for Hall effect induced magnetic turbulence. New Journal of Physics, 2007, 9, 293-293.	1.2	3
88	On boundary conditions in liquid sodium convective experiments. Journal of Physics: Conference Series, 2017, 891, 012075.	0.3	3
89	Helical bottleneck effect in 3D homogeneous isotropic turbulence. Fluid Dynamics Research, 2018, 50, 011412.	0.6	3
90	Magnetic arms of NGC 6946 traced in Faraday cubes at low radio frequencies. Astronomische Nachrichten, 2018, 339, 440-446.	0.6	3

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91	The small-scale dynamo in a spectral representation. Geophysical and Astrophysical Fluid Dynamics, 2019, 113, 184-198.	0.4	3
92	Magnetic field in a decaying spin-down flow of liquid sodium. Magnetohydrodynamics, 2015, 51, 267-274.	0.5	3
93	Anharmonicity of Stellar Cycles: A Wavelet Quantification. Solar Physics, 2004, 224, 179-185.	1.0	2
94	Statistical properties of polarized radio continuum emission and effects of data processing. Astronomische Nachrichten, 2007, 328, 80-91.	0.6	2
95	On Cascade Energy Transfer in Convective Turbulence. Journal of Applied Mechanics and Technical Physics, 2017, 58, 1171-1180.	0.1	2
96	Analysis of mean and fluctuating helicity measured by TomoPIV in swirling jet. EPJ Web of Conferences, 2018, 180, 02097.	0.1	2
97	Experimental Validation of an Inductive System for Magnesium Level Detection in a Titanium Reduction Reactor. Sensors, 2020, 20, 6798.	2.1	2
98	Wavelet analysis of bioimpendancometric data. Journal of Physics: Conference Series, 2010, 224, 012108.	0.3	1
99	Wavelet-based correlations of impedance cardiography signals and heart rate variability. Journal of Physics: Conference Series, 2010, 224, 012107.	0.3	1
100	Reversals of large-scale circulation at turbulent convection in rectangular boxes. Journal of Physics: Conference Series, 2011, 318, 082013.	0.3	1
101	Turbulent convective flows in a cubic cavity at high Prandtl number. Journal of Physics: Conference Series, 2016, 754, 022010.	0.3	1
102	Analysis of mean and fluctuating helicity measured by TomoPIV in swirling jet. EPJ Web of Conferences, 2018, 180, 02097.	0.1	1
103	Heat transport in a cell heated at the bottom and the side (a). Europhysics Letters, 2021, 134, 34001.	0.7	1
104	ICMM's two-loop liquid sodium facility. Magnetohydrodynamics, 2016, 52, 87-94.	0.5	1
105	Recovery of endothelial function in microvessels in patients with peripheral artery disease (PAD) after conservative and surgery treatment. , 2019, , .		1
106	Secondary convective flows in the rectangular tank with non-uniform heating. Journal of Physics: Conference Series, 2011, 318, 082011.	0.3	0
107	Long-time magnetic and cross helicities evolution in the free decaying MHD turbulence. Journal of Physics: Conference Series, 2011, 318, 072038.	0.3	0
108	Multi-frequency inductive system for magnesium level detection in a titanium reduction reactor. IOP Conference Series: Materials Science and Engineering, 2018, 424, 012078.	0.3	0

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109	Direct measurement of turbulent magnetic diffusivity in liquid metal flow. Springer Proceedings in Physics, 2009, , 809-812.	0.1	0
110	Inverse cascades in helically magnetized turbulence. Magnetohydrodynamics, 2017, 53, 89-96.	0.5	0