

Werner Pesch

List of Publications by Year in descending order

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40
papers

2,085
citations

394421

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330143

37
g-index

40
all docs

40
docs citations

40
times ranked

1230
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent Developments in Rayleigh-Bénard Convection. Annual Review of Fluid Mechanics, 2000, 32, 709-778.	25.0	826
2	Core structure and low-energy spectrum of isolated vortex lines in clean superconductors at $T \ll T_c$. European Physical Journal A, 1974, 269, 59-64.	2.5	232
3	Mechanisms of extensive spatiotemporal chaos in Rayleigh-Bénard convection. Nature, 2000, 404, 733-736.	27.8	129
4	Local structure and thermodynamic properties of clean type II superconductors near H_{c1} at arbitrary temperature. Journal of Low Temperature Physics, 1974, 15, 367-386.	1.4	94
5	New Symmetry Breaking in Nonlinear Electroconvection of Nematic Liquid Crystals. Physical Review Letters, 1997, 79, 2367-2370.	7.8	67
6	Superlattice Patterns in Vertically Oscillated Rayleigh-Bénard Convection. Physical Review Letters, 2000, 85, 4281-4284.	7.8	62
7	Local structure and thermodynamic behavior of dirty superconductors in the mixed state at arbitrary temperature. Journal of Low Temperature Physics, 1974, 14, 29-51.	1.4	59
8	Dynamics and Selection of Giant Spirals in Rayleigh-Bénard Convection. Physical Review Letters, 1998, 81, 5334-5337.	7.8	59
9	Nonstandard electroconvection and flexoelectricity in nematic liquid crystals. Physical Review E, 2008, 77, 021705.	2.1	50
10	Extended weakly nonlinear theory of planar nematic convection. Physical Review E, 1999, 59, 1747-1769.	2.1	47
11	Density of states, entropy, and specific heat for dirty type II superconductors at arbitrary temperature. Journal of Low Temperature Physics, 1974, 17, 71-86.	1.4	46
12	Isotropic and anisotropic electroconvection. Physics Reports, 2007, 448, 115-132.	25.6	46
13	Convection under rotation for Prandtl numbers near 1: Kármán-Lortz instability. Physical Review E, 1998, 58, 5821-5833.	2.1	44
14	Complex-ordered patterns in shaken convection. Physical Review E, 2005, 71, 066214.	2.1	27
15	Competition and bistability of ordered undulations and undulation chaos in inclined layer convection. Journal of Fluid Mechanics, 2008, 597, 261-282.	3.4	27
16	Rayleigh-Bénard convection with rotation at small Prandtl numbers. Physical Review E, 2002, 65, 056309.	2.1	25
17	Theory of Rayleigh-Bénard convection in planar nematic liquid crystals. Physical Review A, 1992, 45, 7242-7256.	2.5	22
18	Rayleigh-Bénard convection in a homeotropically aligned nematic liquid crystal. Physical Review E, 1998, 58, 5885-5897.	2.1	21

#	ARTICLE	IF	CITATIONS
19	Spatio-temporal patterns in inclined layer convection. Journal of Fluid Mechanics, 2016, 794, 719-745.	3.4	19
20	Strong non-Boussinesq effects near the onset of convection in a fluid near its critical point. Journal of Fluid Mechanics, 2010, 642, 15-48.	3.4	17
21	Self-Organization of Topological Defects due to Applied Constraints. Physical Review Letters, 2008, 101, 254102.	7.8	16
22	Re-entrant hexagons in non-Boussinesq convection. Journal of Fluid Mechanics, 2006, 548, 341.	3.4	14
23	Pattern formation in vertically oscillated convection. Nonlinearity, 2003, 16, C1-C10.	1.4	13
24	Role of initial conditions in the decay of spatially periodic patterns in a nematic liquid crystal. Physical Review E, 2006, 73, 061705.	2.1	12
25	Transport coefficients in the mixed state of dirty superconductors. European Physical Journal A, 1974, 269, 253-258.	2.5	11
26	Onset of electroconvection of homeotropically aligned nematic liquid crystals. Physical Review E, 2006, 74, 046211.	2.1	11
27	Optical analysis of spatially periodic patterns in nematic liquid crystals: Diffraction and shadowgraphy. Physical Review E, 2013, 87, 052504.	2.1	11
28	Defect Chaos and Bursts: Hexagonal Rotating Convection and the Complex Ginzburg-Landau Equation. Physical Review Letters, 2006, 96, 074501.	7.8	10
29	Patterns driven by combined ac and dc electric fields in nematic liquid crystals. Physical Review E, 2014, 89, 052507.	2.1	10
30	Whirling hexagons and defect chaos in hexagonal non-Boussinesq convection. New Journal of Physics, 2003, 5, 135-135.	2.9	9
31	CONVECTIVE PATTERNS IN LIQUID CRYSTALS DRIVEN BY ELECTRIC FIELD. , 2006, , 55-82.		9
32	Spatiotemporal complexity of electroconvection patterns in nematic liquid crystals. Physical Review E, 2015, 92, 062510.	2.1	8
33	Spiral-defect chaos: Swift-Hohenberg model versus Boussinesq equations. Physical Review E, 2002, 65, 037302.	2.1	7
34	Density of states in dirty type II superconductors near T_c . Solid State Communications, 1974, 14, 1251-1252.	1.9	6
35	Convection in the presence of a first-order phase change. Physical Review E, 1999, 60, 539-550.	2.1	5
36	Pattern Formation in the Rotating Cylindrical Annulus with an Azimuthal Magnetic Field at low Prandtl Numbers. JVC/Journal of Vibration and Control, 2007, 13, 1321-1330.	2.6	5

#	ARTICLE	IF	CITATIONS
37	General Mathematical Description of Pattern-Forming Instabilities. Partially Ordered Systems, 1996, , 69-90.	6.5	5
38	On low-Prandtl-number convection in an inclined layer of liquid mercury. Journal of Fluid Mechanics, 2019, 874, 76-101.	3.4	4
39	The Role of Flexoelectricity in Pattern Formation. , 2012, , 101-135.		0
40	An Initial Look at Acceleration-Modulated Thermal Convection. , 2004, , 331-357.		0