Reinhard Richter

List of Publications by Year
in descending order

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70	1,095	430874	434195
papers	citations	18 h-index	31 g-index

71	71	71	831
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Two-Dimensional Solitons on the Surface of Magnetic Fluids. Physical Review Letters, 2005, 94, 184503.	7.8	125
2	The surface topography of a magnetic fluid: a quantitative comparison between experiment and numerical simulation. Journal of Fluid Mechanics, 2007, 571, 455-474.	3.4	66
3	Experiments on negative and positive magnetoviscosity in an alternating magnetic field. Physical Review E, 1998, 58, 6287-6293.	2.1	61
4	Transition from Symmetric to Asymmetric Scaling Function before Drop Pinch-Off. Physical Review Letters, 2001, 87, 084501.	7.8	61
5	Critical exponents of directed percolation measured in spatiotemporal intermittency. Physical Review E, 2003, 67, 036209.	2.1	55
6	Measuring the deformation of a ferrogel sphere in a homogeneous magnetic field. Journal of Chemical Physics, 2008, 128, 164709.	3.0	54
7	Prerecorded history of a system as an experimental tool to control chaos. Physical Review E, 1994, 50, 262-268.	2.1	51
8	Alignment of Tellurium Nanorods via a Magnetizationâ^'Alignmentâ^' Demagnetization (â€œMADâ€) Process Assisted by an External Magnetic Field. ACS Nano, 2009, 3, 1441-1450.	14.6	48
9	Formation of a drop: viscosity dependence of three flow regimes. New Journal of Physics, 2003, 5, 59-59.	2.9	40
10	Measuring surface deformations in magnetic fluid by radioscopy. Review of Scientific Instruments, 2001, 72, 1729.	1.3	33
11	Homoclinic snaking near the surface instability of a polarisable fluid. Journal of Fluid Mechanics, 2015, 783, 283-305.	3.4	28
12	Viscoelasticity of mono- and polydisperse inverse ferrofluids. Journal of Chemical Physics, 2006, 125, 084907.	3.0	26
13	Thermoreversible Hydroferrogels with Tunable Mechanical Properties Utilizing Block Copolymer Mesophases As Template. Langmuir, 2010, 26, 19181-19190.	3.5	26
14	Wave number of maximal growth in viscous magnetic fluids of arbitrary depth. Physical Review E, 2000, 61, 5528-5539.	2.1	25
15	Growth of surface undulations at the Rosensweig instability. Physical Review E, 2007, 76, 066301.	2.1	25
16	Evidence of Type-III Intermittency in the Electric Breakdown of p -Type Germanium. Europhysics Letters, 1991, 14, 1-6.	2.0	24
17	Critical Dynamics near the Onset of Spontaneous Oscillations in p -Germanium. Europhysics Letters, 1989, 9, 743-748.	2.0	21
18	Via hexagons to squares in ferrofluids: experiments on hysteretic surface transformations under variation of the normal magnetic field. Journal of Physics Condensed Matter, 2006, 18, S2643-S2656.	1.8	19

#	Article	IF	Citations
19	Surface Instabilities of Ferrofluids. Lecture Notes in Physics, 2009, , 157-247.	0.7	19
20	Surface instabilities and magnetic soft matter. Soft Matter, 2009, 5, 2093.	2.7	18
21	Hexagons become the secondary pattern if symmetry is broken. Physical Review E, 2005, 71, 055202.	2.1	15
22	Rolling ferrofluid drop on the surface of a liquid. New Journal of Physics, 2008, 10, 063029.	2.9	15
23	Experiments on the breakup of a liquid bridge of magnetic fluid. Journal of Magnetism and Magnetic Materials, 1999, 201, 324-327.	2.3	13
24	Oscillatory decay at the Rosensweig instability: Experiment and theory. Physical Review E, 2003, 68, 036220.	2.1	13
25	Fluid pumped by magnetic stress. Applied Physics Letters, 2005, 86, 024102.	3.3	13
26	Pumping fluid by magnetic surface stress. New Journal of Physics, 2006, 8, 18-18.	2.9	13
27	Glasslike relaxation of labyrinthine domain patterns. Physical Review E, 2002, 65, 031504.	2.1	11
28	Comment on â€œSelf-assembly of magnetic balls: From chains to tubesâ€• Physical Review E, 2015, 91, 057201.	2.1	11
29	Spherical sample holders to improve the susceptibility measurement of superparamagnetic materials. Review of Scientific Instruments, 2012, 83, 045106.	1.3	10
30	Precise Assembly of Genetically Functionalized Magnetosomes and Tobacco Mosaic Virus Particles Generates a Magnetic Biocomposite. ACS Applied Materials & Interfaces, 2018, 10, 37898-37910.	8.0	10
31	Reorientation of a hexagonal pattern under broken symmetry: The hexagon flip. Physical Review E, 2007, 76, 055301.	2.1	9
32	From phase space representation to amplitude equations in a pattern-forming experiment. New Journal of Physics, 2010, 12, 093037.	2.9	9
33	Coarsening dynamics of ferromagnetic granular networksâ€”experimental results and simulations. Soft Matter, 2018, 14, 1001-1015.	2.7	9
34	Standing twin peaks due to nonâ€“monotonic dispersion of Faraday waves. Journal of Magnetism and Magnetic Materials, 1999, 201, 303-305.	2.3	7
35	The normal field instability under side-wall effects: comparison of experiments and computations. New Journal of Physics, 2009, 11, 053016.	2.9	7
36	Unravelling the Rayleighâ€“Taylor instability by stabilization. Journal of Fluid Mechanics, 2013, 732, .	3.4	7

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37	Type-I intermittency in semiconductor breakdown: An experimental confirmation. Physical Review B, 1994, 49, 8738-8746.	3.2	6
38	Mag(net)ic Liquid Mountains. Europhysics News, 2011, 42, 17-19.	0.3	6
39	Measuring the Kelvin-Helmholtz instability, stabilized by a tangential magnetic field. Journal of Magnetism and Magnetic Materials, 2020, 505, 166693.	2.3	6
40	On the Scaling of Type-1 Intermittency in a Semiconductor Experiment. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1991, 46, 1012-1014.	1.5	5
41	Logarithmic frequency scaling of semiconductor oscillations caused by a modified saddle-node bifurcation on a limit cycle. European Physical Journal B, 1993, 91, 527-529.	1.5	5
42	Magnetic Liquid Patterns in Space and Time. Advances in Solid State Physics, 0, , 789-800.	0.8	5
43	Linear and nonlinear approach to the Rosensweig instability. GAMM Mitteilungen, 2007, 30, 171-184.	5.5	5
44	Response of a ferrofluid to traveling-stripe forcing. Journal of Physics Condensed Matter, 2008, 20, 204109.	1.8	5
45	Measuring magnetic moments of polydisperse ferrofluids utilizing the inverse Langevin function. Physical Review B, 2019, 100, .	3.2	5
46	Stochastic Resonance in Experiment. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1993, 48, 633-635.	1.5	4
47	Spatial coherence of nonlinear dynamics in a semiconductor experiment. Physical Review B, 1993, 47, 115-124.	3.2	4
48	Reaction Time to Voltage Pulses Applied to Semiconductor Impact Ionization Breakdown. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1993, 48, 639-640.	1.5	4
49	Towards softer thermo-reversible magnetogels. Physics Procedia, 2010, 9, 224-228.	1.2	4
50	Magnetic traveling-stripe forcing: Enhanced transport in the advent of the Rosensweig instability. Physical Review E, 2010, 82, 036304.	2.1	4
51	Retarding the growth of the Rosensweig instability unveils a new scaling regime. Physical Review E, 2016, 93, 043106.	2.1	4
52	Unknotting of quasi-two-dimensional ferrogranular networks by in-plane homogeneous magnetic fields. Journal of Magnetism and Magnetic Materials, 2020, 499, 166182.	2.3	4
53	Spatial correlation of chaotic and hyperchaotic dynamics in a semiconductor experiment. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 164, 201-205.	2.1	3
54	On the form invariance of phase length distributions of type-I intermittency observed in a low-temperature semiconductor experiment. Europhysics Letters, 1996, 36, 675-680.	2.0	3

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55	Graphical Magnetogranulometry of EMG909. Journal of Magnetism and Magnetic Materials, 2020, 508, 166868.	2.3	3
56	Experimental realization of mode locking during intrinsic quasiperiodicity inp-type germanium. Physical Review B, 1993, 48, 12603-12608.	3.2	2
57	The growth of localized states on the surface of magnetic fluids. Physics Procedia, 2010, 9, 199-204.	1.2	2
58	Calming the waves, not the storm: measuring the Kelvinâ€“Helmholtz instability in a tangential magnetic field. Journal of Fluid Mechanics, 2020, 903, .	3.4	2
59	An oscillation mechanism of semiconductor breakdown due to magnetic field induced transverse motion of current filaments. Semiconductor Science and Technology, 1992, 7, B486-B487.	2.0	1
60	Symbolic-dynamical analysis of a transition between different limit cycles observed in a semiconductor experiment. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 177, 148-152.	2.1	1
61	Type-I intermittency in semiconductor breakdown - experimental consequences of bifurcations from a toroidal attractor. Physica D: Nonlinear Phenomena, 1993, 66, 187-194.	2.8	1
62	Anomalous Frequency Scaling of a Saddle-Node Bifurcation on a Limit Cycle Disclosed in a Semiconductor Experiment. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1993, 48, 624-626.	1.5	1
63	Time-Averaged Quantity of a Low-Temperature Semiconductor Experiment Reflects Scaling Behavior of Saddle-Node Bifurcation to Chaos. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1994, 49, 838-842.	1.5	1
64	The â€˜Triptych Fractalâ€™ -A New Feature of the Logistic M ap. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1994, 49, 871-873.	1.5	1
65	Pace and patterns of magnetic swimmers in a billiard pool. Physical Review E, 2017, 96, 012205.	2.1	1
66	STOCHASTIC RESONANCE AT THE ONSET OF FINITE- AMPLITUDE OSCILLATIONS IN SEMICONDUCTOR BREAKDOWN. Fractals, 1993, 01, 1068-1074.	3.7	0
67	Notizen: New Concept of a Scanning Laser Microscope Integrated Inside an Encapsulated Cryogenic Sample Stage. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1994, 49, 642-644.	1.5	0
68	Infrared irradiation induced phase transition during low-temperature impact ionization breakdown in p-type germanium. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 198, 134-138.	2.1	0
69	Maximal growth rate at the Rosensweig instability: theory, experiment, and numerics. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 4140025-4140026.	0.2	0
70	On Negative Differential Resistance and Spontaneous Dissipative Structure Formation in the Electric Break-Down of p-Ge at Low Temperatures. NATO ASI Series Series B: Physics, 1993, , 261-268.	0.2	0