Stefan Hutzler

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7536461/publications.pdf

Version: 2024-02-01

133	3,977	147566 31	138251 58
papers	citations	h-index	g-index

141	141	141	2881
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Experimental observation of scaling laws for alternating current and direct current conductivity in polymer-carbon nanotube composite thin films. Journal of Applied Physics, 2002, 92, 4024-4030.	1.1	713
2	The evolution of interdependence in world equity marketsâ€"Evidence from minimum spanning trees. Physica A: Statistical Mechanics and Its Applications, 2007, 376, 455-466.	1.2	170
3	Steady-state drainage of an aqueous foam. Physical Review Letters, 1993, 71, 2670-2673.	2.9	130
4	Structure and energy of liquid foams. Advances in Colloid and Interface Science, 2015, 224, 1-16.	7.0	128
5	Two-dimensional viscous froth model for foam dynamics. Physical Review E, 2004, 70, 041411.	0.8	94
6	Sector analysis for a FTSE portfolio of stocks. Physica A: Statistical Mechanics and Its Applications, 2007, 373, 615-626.	1.2	94
7	Dense packings of spheres in cylinders: Simulations. Physical Review E, 2012, 85, 051305.	0.8	90
8	Dynamics of money and income distributions. Physica A: Statistical Mechanics and Its Applications, 2005, 356, 641-654.	1.2	86
9	Structure and deformation correlation of closed-cell aluminium foam subject to uniaxial compression. Acta Materialia, 2012, 60, 3604-3615.	3.8	78
10	Rocking Newtonâ€™s cradle. American Journal of Physics, 2004, 72, 1508-1516.	0.3	76
11	The fluid dynamics of foams. Journal of Physics Condensed Matter, 2003, 15, S65-S73.	0.7	73
12	The effects of Plateau borders in the two-dimensional soap froth III. Further results. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1995, 71, 277-289.	0.6	69
13	Double power laws in income and wealth distributions. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 3847-3851.	1.2	69
14	Random packing of elliptical disks. Philosophical Magazine Letters, 2005, 85, 89-96.	0.5	66
15	Binding Kinetics and SWNT Bundle Dissociation in Low Concentration Polymerâ^'Nanotube Dispersions. Journal of Physical Chemistry B, 2004, 108, 3446-3450.	1.2	65
16	The crystal structure of bubbles in the wet foam limit. Soft Matter, 2006, 2, 129.	1.2	65
17	Two-Dimensional Foam Rheology with Viscous Drag. Physical Review Letters, 2006, 97, 038302.	2.9	64
18	Applications and generalizations of the foam drainage equation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2000, 456, 2441-2464.	1.0	63

#	Article	IF	Citations
19	Imaging of metallic foams using X-ray micro-CT. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 344, 107-112.	2.3	63
20	Convective instability in foam drainage. Europhysics Letters, 1998, 41, 461-466.	0.7	62
21	Rheological properties of the soft-disk model of two-dimensional foams. Physical Review E, 2008, 78, 021401.	0.8	57
22	A Review of Foam Drainage. Advances in Chemical Physics, 2007, , 315-374.	0.3	56
23	Measurement of Foam Density Profiles Using AC capacitance. Europhysics Letters, 1995, 31, 497-502.	0.7	49
24	Foam coarsening under forced drainage. Philosophical Magazine Letters, 2000, 80, 419-425.	0.5	47
25	An experimental realization of the Weaireâ€“Phelan structure in monodisperse liquid foam. Philosophical Magazine Letters, 2012, 92, 1-6.	0.5	46
26	Calculating statistics of complex networks through random walks with an application to the on-line social network Bebo. European Physical Journal B, 2009, 71, 611-622.	0.6	42
27	Foam drainage in two dimensions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 263, 178-183.	2.3	41
28	Analysis of the internal structure of monodisperse liquid foams by X-ray tomography. Soft Matter, 2011, 7, 9881.	1.2	40
29	A Review of Empirical Studies and Models of Income Distributions in Society. , 0, , 131-159.		40
30	Dilatancy in liquid foams. Philosophical Magazine, 2003, 83, 2747-2760.	0.7	37
31	Crystalline arrangements of microbubbles in monodisperse foams. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 309, 117-124.	2.3	36
32	Bubble size control and measurement in the generation of ferrofluid foams. Journal of Applied Physics, 2003, 93, 10078-10083.	1.1	32
33	Bubble sorting in a foam under forced drainage. Philosophical Magazine Letters, 2000, 80, 41-48.	0.5	31
34	Juggling with bubbles in cylindrical ferrofluid foams. Philosophical Magazine Letters, 2002, 82, 297-301.	0.5	31
35	Relation Between Grain Shape and Fractal Properties in Random Apollonian Packing with Grain Rotation. Physical Review Letters, 2008, 101, 120602.	2.9	30
36	A RANDOM-MATRIX-THEORY-BASED ANALYSIS OF STOCKS OF MARKETS FROM DIFFERENT COUNTRIES. International Journal of Modeling, Simulation, and Scientific Computing, 2008, 11, 655-668.	0.9	30

#	Article	IF	Citations
37	Long-range correlations in an online betting exchange for a football tournament. New Journal of Physics, 2010, 12, 105001.	1.2	30
38	Bubble dynamics and rheology in sheared two-dimensional foams. Soft Matter, 2011, 7, 11252.	1.2	28
39	The foam/emulsion analogy in structure and drainage. European Physical Journal E, 2004, 14, 381-386.	0.7	27
40	Evaluation of a steady-state test of foam stability. Philosophical Magazine, 2011, 91, 537-552.	0.7	27
41	Moving boundaries in ordered cylindrical foam structures. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1997, 75, 845-857.	0.6	26
42	Lattice gas simulations of two-dimensional liquid foams. Rheologica Acta, 2004, 43, 567-574.	1.1	25
43	Vertex corrections in the theory of foam drainage. Journal of Physics Condensed Matter, 2001, 13, 4863-4869.	0.7	23
44	The response of 2D foams to continuous applied shear in a Couette rheometer. European Physical Journal E, 2006, 21, 123-132.	0.7	23
45	The dynamics of a topological change in a system of soap films. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 323, 123-131.	2.3	23
46	A public study of the lifetime distribution of soap films. American Journal of Physics, 2011, 79, 819-824.	0.3	23
47	The surface tells it all: relationship between volume and surface fraction of liquid dispersions. Soft Matter, 2016, 12, 8025-8029.	1.2	23
48	The continuum theory of shear localization in two-dimensional foam. Journal of Physics Condensed Matter, 2010, 22, 193101.	0.7	21
49	Analysis of liquid metal foams through X-ray radioscopy and microgravity experiments. Soft Matter, 2014, 10, 6955-6962.	1.2	21
50	Magnetic soap films and magnetic soap foams. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 263, 65-75.	2.3	19
51	The osmotic pressure of a two-dimensional disordered foam. Journal of Physics Condensed Matter, 1995, 7, L657-L662.	0.7	18
52	Properties of lightweight fibrous structures made by a novel foam forming technique. Cellulose, 2019, 26, 2529-2539.	2.4	18
53	An experimental study of columnar crystals using monodisperse microbubbles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 473, 55-59.	2.3	17
54	Drainage induced convection rolls in foams. European Physical Journal E, 2006, 19, 17-22.	0.7	16

#	Article	IF	Citations
55	Ordered polyhedral foams in tubes with circular, triangular and square cross-section. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 382, 24-31.	2.3	16
56	Drainage induced convection rolls in foams. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 309, 33-37.	2.3	15
57	Ordered cylindrical foam structures with internal bubbles. Philosophical Magazine Letters, 2008, 88, 661-668.	0.5	15
58	Shear localisation with 2D viscous froth and its relation to the continuum model. Rheologica Acta, 2010, 49, 687-698.	1.1	15
59	Slow crystallisation of a monodisperse foam stabilised against coarsening. Soft Matter, 2015, 11, 4710-4716.	1.2	15
60	Velocity dependence of shear localisation in a 2D foam. Philosophical Magazine Letters, 2008, 88, 387-396.	0.5	14
61	Z-cone model for the energy of an ordered foam. Soft Matter, 2014, 10, 7103-7108.	1.2	14
62	Ageing of fibre-laden aqueous foams. Cellulose, 2017, 24, 231-239.	2.4	14
63	New variations on the soap film experiments of Plateau I. Experiments under forced drainage. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1998, 78, 1-12.	0.6	13
64	Visualization of sound waves using regularly spaced soap films. European Journal of Physics, 2007, 28, 755-765.	0.3	13
65	A simple continuum model for the dynamics of a quasi-two dimensional foam. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 309, 125-131.	2.3	13
66	Taking Plateau into Microgravity: The Formation of an Eightfold Vertex in a System of Soap Films. Microgravity Science and Technology, 2008, 20, 17-22.	0.7	13
67	The mechanics of liquid foams: History and new developments. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 382, 3-7.	2.3	13
68	Statistics and topological changes in 2D foam from the dry to the wet limit. Philosophical Magazine, 2017, 97, 1768-1781.	0.7	13
69	Bubble-bubble interactions in a 2d foam, close to the wet limit. Advances in Colloid and Interface Science, 2017, 247, 491-495.	7.0	13
70	A simple formula for the estimation of surface tension from two length measurements for a sessile or pendant drop. Philosophical Magazine Letters, 2018, 98, 9-16.	0.5	13
71	Demonstration and interpretation of â€˜scutoidâ€™ cells formed in a quasi-2D soap froth. Philosophical Magazine Letters, 2018, 98, 358-364.	0.5	13
72	Elastic dilatancy in wet foams: A simple model. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 263, 117-120.	2.3	12

#	Article	IF	Citations
73	Ideal wet two-dimensional foams and emulsions with finite contact angle. Soft Matter, 2018, 14, 5922-5929.	1.2	12
74	Nonlinear phenomena in soap froth. Physica A: Statistical Mechanics and Its Applications, 1998, 257, 264-274.	1.2	11
75	Studying localized bubble rearrangements in 2D liquid foams using a hybrid lattice gas model. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 263, 27-32.	2.3	11
76	Pre-empting Plateau: The nature of topological transitions in foam. Europhysics Letters, 2007, 77, 28002.	0.7	11
77	Soap films under large-amplitude oscillations. Philosophical Magazine Letters, 2008, 88, 669-677.	0.5	11
78	2D foams above the jamming transition: Deformation matters. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 534, 52-57.	2.3	11
79	Onset of rigidity for stretched string networks. Europhysics Letters, 2005, 72, 990-996.	0.7	10
80	The Rheology of Foams. , 2006, , 100-105.		10
81	Light scattering through 2D Plateau borders and foams. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 309, 182-188.	2.3	10
82	Foam stability in microgravity. Journal of Physics: Conference Series, 2011, 327, 012024.	0.3	10
83	Equilibrium configurations of hard spheres in a cylindrical harmonic potential. Europhysics Letters, 2019, 127, 44002.	0.7	10
84	A simple experimental system to illustrate the nonlinear properties of a linear chain under compression. American Journal of Physics, 2020, 88, 347-352.	0.3	10
85	Buckling properties of 2D regular elastomeric honeycombs. Journal of Physics Condensed Matter, 1997, 9, L323-L329.	0.7	9
86	Comments on recent studies of the dynamics and distribution of money. Physica A: Statistical Mechanics and Its Applications, 2006, 370, 43-48.	1.2	9
87	Steady drainage in emulsions: corrections for surface Plateau borders and a model for high aqueous volume fraction. European Physical Journal E, 2007, 22, 341-351.	0.7	9
88	A simple analytical theory of localisation in 2D foam rheology. Philosophical Magazine Letters, 2009, 89, 294-299.	0.5	8
89	Buckling of a linear chain of hard spheres in a harmonic confining potential: Numerical and analytical results for low and high compression. Physical Review E, 2020, 102, 022905.	0.8	8
90	Analysis of the foam-forming of non-woven lightweight fibrous materials using X-ray tomography. SN Applied Sciences, 2021, 3, 192.	1.5	8

#	Article	IF	Citations
91	Variation of average coordination number with liquid fraction for two-dimensional foams with finite contact angle. Philosophical Magazine, 2021, 101, 1048-1060.	0.7	8
92	Foam as granular matter. World Scientific Lecture Notes in Complex Systems, 2007, , 1-26.	0.1	8
93	Toying with physics. Europhysics News, 2007, 38, 23-26.	0.1	7
94	Drainage of foams with regularly spaced parallel soap films. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 309, 13-19.	2.3	7
95	Foam as a complex system. Journal of Physics Condensed Matter, 2009, 21, 474227.	0.7	7
96	Ordered packings of bubbles in columns of square cross-section. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 344, 37-41.	2.3	7
97	Nonlocal effects in the continuum theory of shear localisation in 2d foams. Philosophical Magazine Letters, 2011, 91, 432-440.	0.5	7
98	Adaptation of theZ-cone model to the estimation of the energy of a bcc foam. Philosophical Magazine, 2015, 95, 4023-4034.	0.7	7
99	Applications and extensions of the Z-cone model for the energy of a foam. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 473, 115-122.	2.3	7
100	Columnar structures of soft spheres: Metastability and hysteresis. Physical Review E, 2018, 98, .	0.8	7
101	Theory of rotational columnar structures of soft spheres. Physical Review E, 2019, 99, 020602.	0.8	7
102	Rearrangement and elimination of ordered surface layers of crystalline bubble structures due to gas diffusion. Soft Matter, 2009, 5, 318-324.	1.2	6
103	Building the pyramids: perfect bubble crystals. Philosophical Magazine, 2013, 93, 4138-4150.	0.7	6
104	Interactions of fibres with simple arrangements of soap films. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 534, 112-119.	2.3	6
105	Dynamics of a flexible fibre in a sheared two-dimensional foam: Numerical simulations. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 534, 105-111.	2.3	6
106	Can soap films be used as models for mortality studies?. Physica A: Statistical Mechanics and Its Applications, 2018, 508, 461-470.	1.2	6
107	Simulation and observation of line-slip structures in columnar structures of soft spheres. Physical Review E, 2017, 96, 012610.	0.8	5
108	Implementation of Morseâ€“Witten theory for a polydisperse wet 2D foam simulation. Philosophical Magazine, 2019, 99, 2303-2320.	0.7	5

#	Article	IF	Citations
109	Peierls-Nabarro potential for a confined chain of hard spheres under compression. Europhysics Letters, 2021, 135, 26002.	0.7	5
110	Foams and emulsions in space. Europhysics News, 2008, 39, 26-28.	0.1	4
111	Infant mortality across species. A global probe of congenital abnormalities. Physica A: Statistical Mechanics and Its Applications, 2019, 535, 122308.	1.2	4
112	Physical models of infant mortality: implications for defects in biological systems. Journal of Biological Physics, 2020, 46, 371-394.	0.7	4
113	Mortality: A physics perspective. Physica A: Statistical Mechanics and Its Applications, 2021, 566, 125660.	1.2	4
114	Description of the buckling of a chain of hard spheres in terms of Jacobi functions. Physica D: Nonlinear Phenomena, 2022, 433, 133177.	1.3	4
115	Observations of a variety of drainage patterns in bamboo foams. Europhysics Letters, 2008, 83, 54005.	0.7	3
116	A model system for foam fractionation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20120727.	1.0	3
117	Theoretical analysis of the performance of a foam fractionation column. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20130625.	1.0	3
118	Congenital anomalies from a physics perspective. The key role of â€œmanufacturingâ€•volatility. Physica A: Statistical Mechanics and Its Applications, 2020, 537, 122742.	1.2	3
119	Foams in microgravity. European Physical Journal Special Topics, 2001, 11, Pr6-213-Pr6-220.	0.2	2
120	Foam physics: the simplest example of soft condensed matter. , 2005, , .		1
121	Sheared disk packings as a model system for complex dynamics. Physica A: Statistical Mechanics and Its Applications, 2014, 394, 312-319.	1.2	1
122	The relative energy of fcc and hcp foams. Philosophical Magazine Letters, 2015, 95, 319-323.	0.5	1
123	On the relationship between income, fertility rates and the state of democracy in society. Physica A: Statistical Mechanics and Its Applications, 2016, 452, 9-18.	1.2	1
124	Zero Waste: Mapping the Evolution of the Iterative Sight-Reading of a Piano Score. Music Theory Spectrum, 2018, 40, 302-313.	0.7	1
125	Hard Problems with Soft Materials: The Mechanics of Foams. , 2001, , 275-288.		0
126	Foam Rheology in Two Dimensions. AIP Conference Proceedings, 2008, , .	0.3	0

#	Article	IF	Citations
127	Generalised diffusion model of asset price fluctuations. European Physical Journal B, 2014, 87, 1.	0.6	0
128	Columns of crystals. Physics World, 2019, 32, 26-26.	0.0	0
129	The energy of fcc and hcp foams. Soft Matter, 2020, 16, 8262-8271.	1.2	0
130	A Random Matrix Theory Based Analysis of Stocks of Markets from Different Countries. SSRN Electronic Journal, 0, , .	0.4	0
131	Making, Modelling and Measuring Foams. Europhysics News, 1999, 30, 73.	0.1	0
132	Agent Based Approaches to Income Distributions and the Impact of Memory. , 0, , 259-272.		0
133	The Rheology of Foams. , 0, , 100-105.		0