

Stefan Hutzler

List of Publications by Year in descending order

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133
papers

3,977
citations

147566

31
h-index

138251

58
g-index

141
all docs

141
docs citations

141
times ranked

2881
citing authors

#	ARTICLE	IF	CITATIONS
1	Description of the buckling of a chain of hard spheres in terms of Jacobi functions. <i>Physica D: Nonlinear Phenomena</i> , 2022, 433, 133177.	1.3	4
2	Mortality: A physics perspective. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2021, 566, 125660.	1.2	4
3	Analysis of the foam-forming of non-woven lightweight fibrous materials using X-ray tomography. <i>SN Applied Sciences</i> , 2021, 3, 192.	1.5	8
4	Variation of average coordination number with liquid fraction for two-dimensional foams with finite contact angle. <i>Philosophical Magazine</i> , 2021, 101, 1048-1060.	0.7	8
5	Peierls-Nabarro potential for a confined chain of hard spheres under compression. <i>Europhysics Letters</i> , 2021, 135, 26002.	0.7	5
6	Congenital anomalies from a physics perspective. The key role of "manufacturing" volatility. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 537, 122742.	1.2	3
7	The energy of fcc and hcp foams. <i>Soft Matter</i> , 2020, 16, 8262-8271.	1.2	0
8	Buckling of a linear chain of hard spheres in a harmonic confining potential: Numerical and analytical results for low and high compression. <i>Physical Review E</i> , 2020, 102, 022905.	0.8	8
9	Physical models of infant mortality: implications for defects in biological systems. <i>Journal of Biological Physics</i> , 2020, 46, 371-394.	0.7	4
10	A simple experimental system to illustrate the nonlinear properties of a linear chain under compression. <i>American Journal of Physics</i> , 2020, 88, 347-352.	0.3	10
11	Columns of crystals. <i>Physics World</i> , 2019, 32, 26-26.	0.0	0
12	Equilibrium configurations of hard spheres in a cylindrical harmonic potential. <i>Europhysics Letters</i> , 2019, 127, 44002.	0.7	10
13	Infant mortality across species. A global probe of congenital abnormalities. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2019, 535, 122308.	1.2	4
14	Properties of lightweight fibrous structures made by a novel foam forming technique. <i>Cellulose</i> , 2019, 26, 2529-2539.	2.4	18
15	Implementation of Morse's Witten theory for a polydisperse wet 2D foam simulation. <i>Philosophical Magazine</i> , 2019, 99, 2303-2320.	0.7	5
16	Theory of rotational columnar structures of soft spheres. <i>Physical Review E</i> , 2019, 99, 020602.	0.8	7
17	A simple formula for the estimation of surface tension from two length measurements for a sessile or pendant drop. <i>Philosophical Magazine Letters</i> , 2018, 98, 9-16.	0.5	13
18	<i>Zero Waste</i>: Mapping the Evolution of the Iterative Sight-Reading of a Piano Score. <i>Music Theory Spectrum</i> , 2018, 40, 302-313.	0.7	1

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19	Demonstration and interpretation of "scutoid"™ cells formed in a quasi-2D soap froth. Philosophical Magazine Letters, 2018, 98, 358-364.	0.5	13
20	Columnar structures of soft spheres: Metastability and hysteresis. Physical Review E, 2018, 98, .	0.8	7
21	Can soap films be used as models for mortality studies?. Physica A: Statistical Mechanics and Its Applications, 2018, 508, 461-470.	1.2	6
22	Ideal wet two-dimensional foams and emulsions with finite contact angle. Soft Matter, 2018, 14, 5922-5929.	1.2	12
23	Interactions of fibres with simple arrangements of soap films. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 534, 112-119.	2.3	6
24	2D foams above the jamming transition: Deformation matters. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 534, 52-57.	2.3	11
25	Statistics and topological changes in 2D foam from the dry to the wet limit. Philosophical Magazine, 2017, 97, 1768-1781.	0.7	13
26	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
27	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
28	Simulation and observation of line-slip structures in columnar structures of soft spheres. Physical Review E, 2017, 96, 012610.	0.8	5
29	Ageing of fibre-laden aqueous foams. Cellulose, 2017, 24, 231-239.	2.4	14
30	The surface tells it all: relationship between volume and surface fraction of liquid dispersions. Soft Matter, 2016, 12, 8025-8029.	1.2	23
31	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
32	Adaptation of the <i>Z</i> -cone model to the estimation of the energy of a bcc foam. Philosophical Magazine, 2015, 95, 4023-4034.	0.7	7
33	Applications and extensions of the <i>Z</i> -cone model for the energy of a foam. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 473, 115-122.	2.3	7
34	Structure and energy of liquid foams. Advances in Colloid and Interface Science, 2015, 224, 1-16.	7.0	128
35	An experimental study of columnar crystals using monodisperse microbubbles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 473, 55-59.	2.3	17
36	Slow crystallisation of a monodisperse foam stabilised against coarsening. Soft Matter, 2015, 11, 4710-4716.	1.2	15

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37	The relative energy of fcc and hcp foams. <i>Philosophical Magazine Letters</i> , 2015, 95, 319-323.	0.5	1
38	Theoretical analysis of the performance of a foam fractionation column. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014, 470, 20130625.	1.0	3
39	Generalised diffusion model of asset price fluctuations. <i>European Physical Journal B</i> , 2014, 87, 1.	0.6	0
40	Analysis of liquid metal foams through X-ray radioscopy and microgravity experiments. <i>Soft Matter</i> , 2014, 10, 6955-6962.	1.2	21
41	Z-cone model for the energy of an ordered foam. <i>Soft Matter</i> , 2014, 10, 7103-7108.	1.2	14
42	Sheared disk packings as a model system for complex dynamics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 394, 312-319.	1.2	1
43	Building the pyramids: perfect bubble crystals. <i>Philosophical Magazine</i> , 2013, 93, 4138-4150.	0.7	6
44	A model system for foam fractionation. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2013, 469, 20120727.	1.0	3
45	Dense packings of spheres in cylinders: Simulations. <i>Physical Review E</i> , 2012, 85, 051305.	0.8	90
46	An experimental realization of the Weaire-Phelan structure in monodisperse liquid foam. <i>Philosophical Magazine Letters</i> , 2012, 92, 1-6.	0.5	46
47	Structure and deformation correlation of closed-cell aluminium foam subject to uniaxial compression. <i>Acta Materialia</i> , 2012, 60, 3604-3615.	3.8	78
48	Bubble dynamics and rheology in sheared two-dimensional foams. <i>Soft Matter</i> , 2011, 7, 11252.	1.2	28
49	Analysis of the internal structure of monodisperse liquid foams by X-ray tomography. <i>Soft Matter</i> , 2011, 7, 9881.	1.2	40
50	A public study of the lifetime distribution of soap films. <i>American Journal of Physics</i> , 2011, 79, 819-824.	0.3	23
51	Nonlocal effects in the continuum theory of shear localisation in 2d foams. <i>Philosophical Magazine Letters</i> , 2011, 91, 432-440.	0.5	7
52	The mechanics of liquid foams: History and new developments. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 382, 3-7.	2.3	13
53	Ordered polyhedral foams in tubes with circular, triangular and square cross-section. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 382, 24-31.	2.3	16
54	Foam stability in microgravity. <i>Journal of Physics: Conference Series</i> , 2011, 327, 012024.	0.3	10

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55	Evaluation of a steady-state test of foam stability. Philosophical Magazine, 2011, 91, 537-552.	0.7	27
56	Shear localisation with 2D viscous froth and its relation to the continuum model. Rheologica Acta, 2010, 49, 687-698.	1.1	15
57	The continuum theory of shear localization in two-dimensional foam. Journal of Physics Condensed Matter, 2010, 22, 193101.	0.7	21
58	Long-range correlations in an online betting exchange for a football tournament. New Journal of Physics, 2010, 12, 105001.	1.2	30
59	Foam as a complex system. Journal of Physics Condensed Matter, 2009, 21, 474227.	0.7	7
60	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
61	Imaging of metallic foams using X-ray micro-CT. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 344, 107-112.	2.3	63
62	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
63	A simple analytical theory of localisation in 2D foam rheology. Philosophical Magazine Letters, 2009, 89, 294-299.	0.5	8
64	Rearrangement and elimination of ordered surface layers of crystalline bubble structures due to gas diffusion. Soft Matter, 2009, 5, 318-324.	1.2	6
65	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
66	Double power laws in income and wealth distributions. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 3847-3851.	1.2	69
67	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
68	Relation Between Grain Shape and Fractal Properties in Random Apollonian Packing with Grain Rotation. Physical Review Letters, 2008, 101, 120602.	2.9	30
69	Soap films under large-amplitude oscillations. Philosophical Magazine Letters, 2008, 88, 669-677.	0.5	11
70	Ordered cylindrical foam structures with internal bubbles. Philosophical Magazine Letters, 2008, 88, 661-668.	0.5	15
71	Velocity dependence of shear localisation in a 2D foam. Philosophical Magazine Letters, 2008, 88, 387-396.	0.5	14
72	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

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73	Foam Rheology in Two Dimensions. AIP Conference Proceedings, 2008, , .	0.3	0
74	Observations of a variety of drainage patterns in bamboo foams. Europhysics Letters, 2008, 83, 54005.	0.7	3
75	Rheological properties of the soft-disk model of two-dimensional foams. Physical Review E, 2008, 78, 021401.	0.8	57
76	Foams and emulsions in space. Europhysics News, 2008, 39, 26-28.	0.1	4
77	A Review of Foam Drainage. Advances in Chemical Physics, 2007, , 315-374.	0.3	56
78	Pre-empting Plateau: The nature of topological transitions in foam. Europhysics Letters, 2007, 77, 28002.	0.7	11
79	Visualization of sound waves using regularly spaced soap films. European Journal of Physics, 2007, 28, 755-765.	0.3	13
80	Toying with physics. Europhysics News, 2007, 38, 23-26.	0.1	7
81	Drainage induced convection rolls in foams. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 309, 33-37.	2.3	15
82	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
83	Crystalline arrangements of microbubbles in monodisperse foams. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 309, 117-124.	2.3	36
84	Light scattering through 2D Plateau borders and foams. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 309, 182-188.	2.3	10
85	Drainage of foams with regularly spaced parallel soap films. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 309, 13-19.	2.3	7
86	Sector analysis for a FTSE portfolio of stocks. Physica A: Statistical Mechanics and Its Applications, 2007, 373, 615-626.	1.2	94
87	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
88	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
89	Foam as granular matter. World Scientific Lecture Notes in Complex Systems, 2007, , 1-26.	0.1	8
90	The Rheology of Foams. , 2006, , 100-105.		10

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91	The crystal structure of bubbles in the wet foam limit. <i>Soft Matter</i> , 2006, 2, 129.	1.2	65
92	Two-Dimensional Foam Rheology with Viscous Drag. <i>Physical Review Letters</i> , 2006, 97, 038302.	2.9	64
93	Comments on recent studies of the dynamics and distribution of money. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2006, 370, 43-48.	1.2	9
94	Drainage induced convection rolls in foams. <i>European Physical Journal E</i> , 2006, 19, 17-22.	0.7	16
95	The response of 2D foams to continuous applied shear in a Couette rheometer. <i>European Physical Journal E</i> , 2006, 21, 123-132.	0.7	23
96	Dynamics of money and income distributions. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2005, 356, 641-654.	1.2	86
97	Elastic dilatancy in wet foams: A simple model. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2005, 263, 117-120.	2.3	12
98	Magnetic soap films and magnetic soap foams. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2005, 263, 65-75.	2.3	19
99	Studying localized bubble rearrangements in 2D liquid foams using a hybrid lattice gas model. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2005, 263, 27-32.	2.3	11
100	Foam drainage in two dimensions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2005, 263, 178-183.	2.3	41
101	Foam physics: the simplest example of soft condensed matter. , 2005, , .		1
102	Onset of rigidity for stretched string networks. <i>Europhysics Letters</i> , 2005, 72, 990-996.	0.7	10
103	Random packing of elliptical disks. <i>Philosophical Magazine Letters</i> , 2005, 85, 89-96.	0.5	66
104	The foam/emulsion analogy in structure and drainage. <i>European Physical Journal E</i> , 2004, 14, 381-386.	0.7	27
105	Lattice gas simulations of two-dimensional liquid foams. <i>Rheologica Acta</i> , 2004, 43, 567-574.	1.1	25
106	Binding Kinetics and SWNT Bundle Dissociation in Low Concentration Polymer~Nanotube Dispersions. <i>Journal of Physical Chemistry B</i> , 2004, 108, 3446-3450.	1.2	65
107	Two-dimensional viscous froth model for foam dynamics. <i>Physical Review E</i> , 2004, 70, 041411.	0.8	94
108	Rocking Newton's cradle. <i>American Journal of Physics</i> , 2004, 72, 1508-1516.	0.3	76

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109	The fluid dynamics of foams. <i>Journal of Physics Condensed Matter</i> , 2003, 15, S65-S73.	0.7	73
110	Dilatancy in liquid foams. <i>Philosophical Magazine</i> , 2003, 83, 2747-2760.	0.7	37
111	Bubble size control and measurement in the generation of ferrofluid foams. <i>Journal of Applied Physics</i> , 2003, 93, 10078-10083.	1.1	32
112	Juggling with bubbles in cylindrical ferrofluid foams. <i>Philosophical Magazine Letters</i> , 2002, 82, 297-301.	0.5	31
113	Experimental observation of scaling laws for alternating current and direct current conductivity in polymer-carbon nanotube composite thin films. <i>Journal of Applied Physics</i> , 2002, 92, 4024-4030.	1.1	713
114	Vertex corrections in the theory of foam drainage. <i>Journal of Physics Condensed Matter</i> , 2001, 13, 4863-4869.	0.7	23
115	Hard Problems with Soft Materials: The Mechanics of Foams. , 2001, , 275-288.		0
116	Foams in microgravity. <i>European Physical Journal Special Topics</i> , 2001, 11, Pr6-213-Pr6-220.	0.2	2
117	Applications and generalizations of the foam drainage equation. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2000, 456, 2441-2464.	1.0	63
118	Foam coarsening under forced drainage. <i>Philosophical Magazine Letters</i> , 2000, 80, 419-425.	0.5	47
119	Bubble sorting in a foam under forced drainage. <i>Philosophical Magazine Letters</i> , 2000, 80, 41-48.	0.5	31
120	Making, Modelling and Measuring Foams. <i>Europhysics News</i> , 1999, 30, 73.	0.1	0
121	Nonlinear phenomena in soap froth. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 257, 264-274.	1.2	11
122	Convective instability in foam drainage. <i>Europhysics Letters</i> , 1998, 41, 461-466.	0.7	62
123	New variations on the soap film experiments of Plateau I. Experiments under forced drainage. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1998, 78, 1-12.	0.6	13
124	Buckling properties of 2D regular elastomeric honeycombs. <i>Journal of Physics Condensed Matter</i> , 1997, 9, L323-L329.	0.7	9
125	Moving boundaries in ordered cylindrical foam structures. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1997, 75, 845-857.	0.6	26
126	The osmotic pressure of a two-dimensional disordered foam. <i>Journal of Physics Condensed Matter</i> , 1995, 7, L657-L662.	0.7	18

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127	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
128	Measurement of Foam Density Profiles Using AC capacitance. Europhysics Letters, 1995, 31, 497-502.	0.7	49
129	Steady-state drainage of an aqueous foam. Physical Review Letters, 1993, 71, 2670-2673.	2.9	130
130	A Review of Empirical Studies and Models of Income Distributions in Society. , 0, , 131-159.		40
131	A Random Matrix Theory Based Analysis of Stocks of Markets from Different Countries. SSRN Electronic Journal, 0, , .	0.4	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