Lucas Goehring

List of Publications by Year
in descending order

49 papers	1,845 citations	257450 24 h-index	265206 42 g-index
59 all docs	59 docs citations	59 times ranked	1824 citing authors

#	Article	IF	Citations
1	Interfacial mechanisms in active emulsions. Soft Matter, 2014, 10, 7008-7022.	2.7	159
2	Nonequilibrium scale selection mechanism for columnar jointing. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 387-392.	7.1	108
3	Evolution of mud-crack patterns during repeated drying cycles. Soft Matter, 2010, 6, 3562.	2.7	108
4	Scaling of columnar joints in basalt. Journal of Geophysical Research, 2008, 113, .	3.3	94
5	Evolving fracture patterns: columnar joints, mud cracks and polygonal terrain. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120353.	3.4	88
6	Solidification and Ordering during Directional Drying of a Colloidal Dispersion. Langmuir, 2010, 26, 9269-9275.	3.5	87
7	Plasticity and Fracture in Drying Colloidal Films. Physical Review Letters, 2013, 110, 024301.	7.8	79
8	Experimental investigation of the scaling of columnar joints. Physical Review E, 2006, 74, 036115.	2.1	74
9	Order and disorder in columnar joints. Europhysics Letters, 2005, 69, 739-745.	2.0	73
10	Drying Dip-Coated Colloidal Films. Langmuir, 2012, 28, 200-208.	3.5	63
11	Wavy cracks in drying colloidal films. Soft Matter, 2011, 7, 7984.	2.7	60
12	Structural anisotropy of directionally dried colloids. Europhysics Letters, 2014, 105, 38005.	2.0	53
13	Effect of film thickness and particle size on cracking stresses in drying latex films. Journal of Colloid and Interface Science, 2010, 352, 542-548.	9.4	51
14	Cracking mud, freezing dirt, and breaking rocks. Physics Today, 2014, 67, 39-44.	0.3	47
15	Hiding in Plain View: Colloidal Self-Assembly from Polydisperse Populations. Physical Review Letters, 2016, 116, 208001.	7.8	46
16	Drying colloidal systems: Laboratory models for a wide range of applications. European Physical Journal E, 2018, 41, 94.	1.6	43
17	Drying paint: from micro-scale dynamics to mechanical instabilities. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160161.	3.4	42
18	Formation of Kinneyia via shear-induced instabilities in microbial mats. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120362.	3.4	38

#	Article	IF	Citations
19	A cohesive granular material with tunable elasticity. Scientific Reports, 2016, 6, 35650.	3.3	37
20	Fundamental Investigation of the Drying of Solid Suspensions. Industrial & Engineering Chemistry Research, 2017, 56, 10506-10513.	3.7	37
21	Drying and cracking mechanisms in a starch slurry. Physical Review E, 2009, 80, 036116.	2.1	34
22	The smectic order of wrinkles. Nature Communications, 2017, 8, 15809.	12.8	33
23	Formation of Shear Bands in Drying Colloidal Dispersions. Physical Review Letters, 2015, 115, 088302.	7.8	32
24	Crack patterns over uneven substrates. Soft Matter, 2016, 12, 2253-2263.	2.7	31
25	Drying in a microfluidic chip: experiments and simulations. Scientific Reports, 2017, 7, 15572.	3.3	24
26	Impact of spatially correlated poreâ€scale heterogeneity on drying porous media. Water Resources Research, 2017, 53, 5645-5658.	4.2	22
27	A Structural Systems Biology Approach for Quantifying the Systemic Consequences of Missense Mutations in Proteins. PLoS Computational Biology, 2012, 8, e1002738.	3.2	19
28	Immiscible fluid displacement in porous media with spatially correlated particle sizes. Advances in Water Resources, 2019, 128, 158-167.	3.8	18
29	Fracture of a model cohesive granular material. Soft Matter, 2017, 13, 1040-1047.	2.7	17
30	Nuclear spin polarization transfer across an organic-semiconductor interface. Journal of Chemical Physics, 2003, 119, 10325-10329.	3.0	16
31	Drying and percolation in correlated porous media. Physical Review Fluids, 2018, 3, .	2.5	16
32	Failure processes of cemented granular materials. Physical Review E, 2020, 102, 052903.	2.1	14
33	How do polydisperse repulsive colloids crystallize?. Faraday Discussions, 2016, 186, 229-240.	3.2	11
34	Load dependence of power outage statistics. Europhysics Letters, 2019, 126, 44002.	2.0	11
35	Pattern formation in the geosciences. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120352.	3.4	10
36	Interface propagation in fiber bundles: local, mean-field and intermediate range-dependent statistics. New Journal of Physics, 2016, 18, 103048.	2.9	9

#	Article	IF	Citations
37	Packing Polydisperse Colloids into Crystals: When Charge-Dispersity Matters. Physical Review Letters, 2020, 124, 058003.	7.8	9
38	Kinneyia: A Flow-Induced Anisotropic Fossil Pattern from Ancient Microbial Mats. Frontiers in Materials, 2016, 3, .	2.4	8
39	Controlling the drying-induced peeling of colloidal films. Soft Matter, 2020, 16, 8345-8351.	2.7	6
40	Stability and dynamics of convection in dry salt lakes. Journal of Fluid Mechanics, 2021, 917, .	3.4	6
41	Surface and subsurface characterisation of salt pans expressing polygonal patterns. Earth System Science Data, 2020, 12, 2881-2898.	9.9	5
42	Mapping heterogeneities through avalanche statistics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20170388.	3.4	3
43	Statistical physics of fracture and earthquakes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180202.	3.4	2
44	Frequency pulling effects in the quasi-two-dimensional ferromagnet54Mnâ^'Mn(COOCH3)2â‹…4H2Ostudied by nuclear orientation techniques. Physical Review B, 2001, 64, .	3.2	1
45	Measuring and upscaling micromechanical interactions in a cohesive granular material. Soft Matter, 2021, 17, 5806-5814.	2.7	1
46	Impurities in Magnetic Insulators Studied by Low-Temperature Nuclear Orientation. Hyperfine Interactions, 2001, 136/137, 415-419.	0.5	0
47	Pattern formation in the geosciences. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120352.	3.4	0
48	Formation of Kinneyia via shear-induced instabilities in microbial mats. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120362.	3.4	0
49	Evolving fracture patterns: columnar joints, mud cracks and polygonal terrain. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120353.	3.4	0