Peter J Yunker

List of Publications by Year
in descending order

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48 papers	3,674 citations	331670 21 h-index	223800 46 g-index
56 all docs	56 docs citations	56 times ranked	4586 citing authors

#	Article	IF	Citations
1	Suppression of the coffee-ring effect by shape-dependent capillary interactions. Nature, 2011, 476, 308-311.	27.8	1,288
2	Surfactant-Induced Marangoni Eddies Alter the Coffee-Rings of Evaporating Colloidal Drops. Langmuir, 2012, 28, 4984-4988.	3.5	369
3	Thermal vestige of the zero-temperature jamming transition. Nature, 2009, 459, 230-233.	27.8	232
4	Geometric frustration in buckled colloidal monolayers. Nature, 2008, 456, 898-903.	27.8	199
5	Low-Frequency Vibrations of Soft Colloidal Glasses. Physical Review Letters, 2010, 105, 025501.	7.8	147
6	Killing by Type VI secretion drives genetic phase separation and correlates with increased cooperation. Nature Communications, 2017, 8, 14371.	12.8	143
7	Effects of Particle Shape on Growth Dynamics at Edges of Evaporating Drops of Colloidal Suspensions. Physical Review Letters, 2013, 110, 035501.	7.8	127
8	Physics in ordered and disordered colloidal matter composed of poly(N-isopropylacrylamide) microgel particles. Reports on Progress in Physics, 2014, 77, 056601.	20.1	123
9	Cooperative Rearrangement Regions and Dynamical Heterogeneities in Colloidal Glasses with Attractive Versus Repulsive Interactions. Physical Review Letters, 2011, 107, 208303.	7.8	114
10	Measurement of Correlations between Low-Frequency Vibrational Modes and Particle Rearrangements in Quasi-Two-Dimensional Colloidal Glasses. Physical Review Letters, 2011, 107, 108301.	7.8	98
11	Irreversible Rearrangements, Correlated Domains, and Local Structure in Aging Glasses. Physical Review Letters, 2009, 103, 115701.	7.8	90
12	Observation of the Disorder-Induced Crystal-to-Glass Transition. Physical Review Letters, 2010, 104, 015701.	7.8	69
13	Drivers of Spatial Structure in Social Microbial Communities. Current Biology, 2019, 29, R545-R550.	3.9	56
14	Cellular packing, mechanical stressÂand the evolution of multicellularity. Nature Physics, 2018, 14, 286-290.	16.7	48
15	Diffraction phase microscopy: monitoring nanoscale dynamics in materials science [Invited]. Applied Optics, 2014, 53, G33.	1.8	46
16	Analysis of Vibrio cholerae genomes identifies new type VI secretion system gene clusters. Genome Biology, 2019, 20, 163.	8.8	45
17	Topological constraints in early multicellularity favor reproductive division of labor. ELife, 2020, 9, .	6.0	34
18	Influence of Particle Shape on Bending Rigidity of Colloidal Monolayer Membranes and Particle Deposition during Droplet Evaporation in Confined Geometries. Physical Review Letters, 2012, 108, 228303.	7.8	31

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19	Ecological Advantages and Evolutionary Limitations of Aggregative Multicellular Development. Current Biology, 2020, 30, 4155-4164.e6.	3.9	31
20	Rotational and translational phonon modes in glasses composed of ellipsoidal particles. Physical Review E, 2011, 83, 011403.	2.1	26
21	Phonon dispersion and elastic moduli of two-dimensional disordered colloidal packings of soft particles with frictional interactions. Physical Review E, 2014, 89, 012301.	2.1	23
22	Cyberphysical risks of hacked internet-connected vehicles. Physical Review E, 2019, 100, 012316.	2.1	23
23	Temperatureâ€Sensitive Hydrogelâ€Particle Films from Evaporating Drops. Advanced Materials Interfaces, 2015, 2, 1500371.	3.7	20
24	Measuring the Nonuniform Evaporation Dynamics of Sprayed Sessile Microdroplets with Quantitative Phase Imaging. Langmuir, 2015, 31, 11020-11032.	3.5	20
25	Cellular organization in lab-evolved and extant multicellular species obeys a maximum entropy law. ELife, 2022, 11, .	6.0	20
26	Structural hierarchy confers error tolerance in biological materials. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2875-2880.	7.1	19
27	Glucose confers protection to Escherichia coli against contactÂkilling by Vibrio cholerae. Scientific Reports, 2021, 11, 2935.	3.3	19
28	Phonon Spectra, Nearest Neighbors, and Mechanical Stability of Disordered Colloidal Clusters with Attractive Interactions. Physical Review Letters, 2011, 106, 225503.	7.8	18
29	Record dynamics: Direct experimental evidence from jammed colloids. Europhysics Letters, 2016, 116, 38003.	2.0	18
30	Accumulation of dead cells from contact killing facilitates coexistence in bacterial biofilms. Journal of the Royal Society Interface, 2020, 17, 20200486.	3.4	17
31	Coffee rings and coffee disks: Physics on the edge. Physics Today, 2013, 66, 60-61.	0.3	15
32	Phonons in two-dimensional colloidal crystals with bond-strength disorder. Physical Review E, 2013, 87, 052301.	2.1	15
33	Immotile Active Matter: Activity from Death and Reproduction. Physical Review Letters, 2018, 120, 018101.	7.8	14
34	Geometry, packing, and evolutionary paths to increased multicellular size. Physical Review E, 2018, 97, 050401.	2.1	14
35	YunkeretÂal.Reply:. Physical Review Letters, 2013, 111, 209602.	7.8	12
36	Domed Silica Microcylinders Coated with Oleophilic Polypeptides and Their Behavior in Lyotropic Cholesteric Liquid Crystals of the Same Polypeptide. Langmuir, 2016, 32, 13137-13148.	3.5	11

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37	Varied solutions to multicellularity: The biophysical and evolutionary consequences of diverse intercellular bonds. Biophysics Reviews, 2022, 3, .	2.7	11
38	Interaction anisotropy and the KPZ to KPZQ transition in particle deposition at the edges of drying drops. Soft Matter, 2018, 14, 1903-1907.	2.7	10
39	One-pot system for synthesis, assembly, and display of functional single-span membrane proteins on oilâ€“water interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 608-613.	7.1	8
40	Relationship between neighbor number and vibrational spectra in disordered colloidal clusters with attractive interactions. Journal of Chemical Physics, 2013, 138, 12A525.	3.0	6
41	Matrices (re)loaded: Durability, viability, and fermentative capacity of yeast encapsulated in beads of different composition during longâ€term fedâ€batch culture. Biotechnology Progress, 2020, 36, e2925.	2.6	5
42	A New Contact Killing Toxin Permeabilizes Cells and Belongs to a Broadly Distributed Protein Family. MSphere, 2021, 6, e0031821.	2.9	5
43	Black Soldier Fly Larvae Rearrange under Compression. Integrative and Comparative Biology, 2019, 59, 1646-1652.	2.0	4
44	Transport and trapping of nanosheets via hydrodynamic forces and curvature-induced capillary quadrupolar interactions. Journal of Colloid and Interface Science, 2018, 531, 352-359.	9.4	3
45	Biomechanics of pollen pellet removal by the honey bee. Journal of the Royal Society Interface, 2021, 18, 20210549.	3.4	3
46	Evolution of a cis -Acting SNP That Controls Type VI Secretion in Vibrio cholerae. MBio, 2022, 13, .	4.1	3
47	Reshaping sub-millimetre bubbles from spheres to tori. Soft Matter, 2022, 18, 4660-4666.	2.7	1
48	Characterizing microdroplet evaporation using diffraction phase microscopy. , 2014, , .		0