

Carl P Goodrich

List of Publications by Year in descending order

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27
papers

1,140
citations

394421

19
h-index

526287

27
g-index

28
all docs

28
docs citations

28
times ranked

1103
citing authors

#	ARTICLE	IF	CITATIONS
1	Finite-Size Scaling at the Jamming Transition. <i>Physical Review Letters</i> , 2012, 109, 095704.	7.8	164
2	Designing allostery-inspired response in mechanical networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 2520-2525.	7.1	130
3	Solids between the mechanical extremes of order and disorder. <i>Nature Physics</i> , 2014, 10, 578-581.	16.7	86
4	Jamming in finite systems: Stability, anisotropy, fluctuations, and scaling. <i>Physical Review E</i> , 2014, 90, 022138.	2.1	85
5	Single-Molecule Electrophoresis of \hat{I}^2 -Hairpin Peptides by Electrical Recordings and Langevin Dynamics Simulations. <i>Journal of Physical Chemistry B</i> , 2007, 111, 3332-3335.	2.6	82
6	The Principle of Independent Bond-Level Response: Tuning by Pruning to Exploit Disorder for Global Behavior. <i>Physical Review Letters</i> , 2015, 114, 225501.	7.8	76
7	Scaling ansatz for the jamming transition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 9745-9750.	7.1	67
8	Deformation of Crystals: Connections with Statistical Physics. <i>Annual Review of Materials Research</i> , 2017, 47, 217-246.	9.3	61
9	Emergent $SO(3)$ Symmetry of the Frictionless Shear Jamming Transition. <i>Journal of Statistical Physics</i> , 2017, 167, 735-748.	1.2	49
10	Enhanced diffusion by binding to the crosslinks of a polymer gel. <i>Nature Communications</i> , 2018, 9, 4348.	12.8	45
11	Stability of jammed packings I: the rigidity length scale. <i>Soft Matter</i> , 2013, 9, 10993.	2.7	37
12	Divergence of Voronoi Cell Anisotropy Vector: A Threshold-Free Characterization of Local Structure in Amorphous Materials. <i>Physical Review Letters</i> , 2016, 116, 088001.	7.8	35
13	Stability of jammed packings II: the transverse length scale. <i>Soft Matter</i> , 2013, 9, 11000.	2.7	26
14	Designing self-assembling kinetics with differentiable statistical physics models. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	26
15	Phonon dispersion and elastic moduli of two-dimensional disordered colloidal packings of soft particles with frictional interactions. <i>Physical Review E</i> , 2014, 89, 012301.	2.1	23
16	Collective dynamics of soft active particles. <i>Physical Review E</i> , 2015, 91, 032706.	2.1	23
17	Pinning Susceptibility: The Effect of Dilute, Quenched Disorder on Jamming. <i>Physical Review Letters</i> , 2016, 116, 235501.	7.8	20
18	Spatial structure of states of self stress in jammed systems. <i>Soft Matter</i> , 2016, 12, 3982-3990.	2.7	19

#	ARTICLE	IF	CITATIONS
19	Using active colloids as machines to weave and braid on the micrometer scale. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 257-262.	7.1	19
20	Microscopic origins of the crystallographically preferred growth in evaporation-induced colloidal crystals. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	17
21	Contact nonlinearities and linear response in jammed particulate packings. Physical Review E, 2014, 90, 022201.	2.1	15
22	Vibrational and structural signatures of the crossover between dense glassy and sparse gel-like attractive colloidal packings. Physical Review E, 2014, 90, 062305.	2.1	12
23	Comment on "Repulsive Contact Interactions Make Jammed Particulate Systems Inherently Nonharmonic". Physical Review Letters, 2014, 112, 049801.	7.8	9
24	Disordered surface vibrations in jammed sphere packings. Soft Matter, 2015, 11, 2745-2751.	2.7	7
25	Higher-order wavelet reconstruction/differentiation filters and Gibbs phenomena. Journal of Computational Physics, 2016, 305, 244-262.	3.8	4
26	Self-assembly-based posttranslational protein oscillators. Science Advances, 2020, 6, .	10.3	2
27	Reply to the "Comment on "Spatial structure of states of self stress in jammed systems" by E. Lerner, Soft Matter, 2017, 13, DOI: 10.1039/c6sm01111j. Soft Matter, 2017, 13, 1532-1533.	2.7	1