

# Xiang Cheng

## List of Publications by Year in descending order

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Version: 2024-02-01

48  
papers

1,887  
citations

304602

22  
h-index

254106

43  
g-index

50  
all docs

50  
docs citations

50  
times ranked

2142  
citing authors

#	ARTICLE	IF	CITATIONS
1	Imaging the Microscopic Structure of Shear Thinning and Thickening Colloidal Suspensions. <i>Science</i> , 2011, 333, 1276-1279.	6.0	414
2	Localizing graphene at the interface of cocontinuous polymer blends: Morphology, rheology, and conductivity of cocontinuous conductive polymer composites. <i>Journal of Rheology</i> , 2017, 61, 575-587.	1.3	107
3	Towards the zero-surface-tension limit in granular fingering instability. <i>Nature Physics</i> , 2008, 4, 234-237.	6.5	106
4	Controlling the Morphology of Immiscible Cocontinuous Polymer Blends via Silica Nanoparticles Jammed at the Interface. <i>Macromolecules</i> , 2016, 49, 3911-3918.	2.2	85
5	Diffusion of Ellipsoids in Bacterial Suspensions. <i>Physical Review Letters</i> , 2016, 116, 068303.	2.9	83
6	Three-Dimensional Shear in Granular Flow. <i>Physical Review Letters</i> , 2006, 96, 038001.	2.9	78
7	Dynamics and rheology of nonpolar bijels. <i>Soft Matter</i> , 2015, 11, 5282-5293.	1.2	75
8	Kinetic Control of Graphene Localization in Co-continuous Polymer Blends via Melt Compounding. <i>Langmuir</i> , 2018, 34, 1073-1083.	1.6	74
9	Assembly of vorticity-aligned hard-sphere colloidal strings in a simple shear flow. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 63-67.	3.3	72
10	Collective Behavior in a Granular Jet: Emergence of a Liquid with Zero Surface Tension. <i>Physical Review Letters</i> , 2007, 99, 188001.	2.9	71
11	Granular impact cratering by liquid drops: Understanding raindrop imprints through an analogy to asteroid strikes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 342-347.	3.3	64
12	Dynamics of drop impact on solid surfaces: evolution of impact force and self-similar spreading. <i>Journal of Fluid Mechanics</i> , 2018, 840, 190-214.	1.4	55
13	Drop Impact Dynamics: Impact Force and Stress Distributions. <i>Annual Review of Fluid Mechanics</i> , 2022, 54, 57-81.	10.8	51
14	Experimental study of the jamming transition at zero temperature. <i>Physical Review E</i> , 2010, 81, 031301.	0.8	45
15	Symmetric shear banding and swarming vortices in bacterial superfluids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 7212-7217.	3.3	43
16	A multi-axis confocal rheoscope for studying shear flow of structured fluids. <i>Review of Scientific Instruments</i> , 2014, 85, 033905.	0.6	36
17	The colloidal nature of complex fluids enhances bacterial motility. <i>Nature</i> , 2022, 603, 819-823.	13.7	33
18	Structures and Dynamics of Glass-Forming Colloidal Liquids under Spherical Confinement. <i>Physical Review Letters</i> , 2016, 116, 098302.	2.9	29

#	ARTICLE	IF	CITATIONS
19	Polymer/Graphene Composites via Spinodal Decomposition of Miscible Polymer Blends. <i>Macromolecules</i> , 2019, 52, 7625-7637.	2.2	28
20	Imaging the emergence of bacterial turbulence: Phase diagram and transition kinetics. <i>Science Advances</i> , 2021, 7, .	4.7	28
21	Rheology of bacterial suspensions under confinement. <i>Rheologica Acta</i> , 2019, 58, 439-451.	1.1	27
22	Stress distribution and surface shock wave of drop impact. <i>Nature Communications</i> , 2022, 13, 1703.	5.8	22
23	Paper-Based Supercapacitive Mechanical Sensors. <i>Scientific Reports</i> , 2018, 8, 16284.	1.6	20
24	Drying of multicomponent thin films on substrates with topography. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2017, 55, 1681-1691.	2.4	18
25	Far-from-equilibrium sheared colloidal liquids: Disentangling relaxation, advection, and shear-induced diffusion. <i>Physical Review E</i> , 2013, 88, 062309.	0.8	17
26	Impact dynamics of granular jets with noncircular cross sections. <i>Physical Review E</i> , 2014, 89, 042201.	0.8	17
27	Biaxial shear of confined colloidal hard spheres: the structure and rheology of the vorticity-aligned string phase. <i>Soft Matter</i> , 2014, 10, 1969.	1.2	17
28	Scaling of liquid-drop impact craters in wet granular media. <i>Physical Review E</i> , 2015, 92, 042205.	0.8	17
29	Enhancing Rotational Diffusion Using Oscillatory Shear. <i>Physical Review Letters</i> , 2013, 110, 228301.	2.9	16
30	Dynamics of ellipsoidal tracers in swimming algal suspensions. <i>Physical Review E</i> , 2016, 94, 042601.	0.8	16
31	Shear-banding and superdiffusivity in entangled polymer solutions. <i>Physical Review E</i> , 2017, 96, 062503.	0.8	14
32	Robust networks of interfacial localized graphene in cocontinuous polymer blends. <i>Journal of Rheology</i> , 2021, 65, 1139-1153.	1.3	12
33	Tuning the rheology and microstructure of particle-laden fluid interfaces with Janus particles. <i>Journal of Colloid and Interface Science</i> , 2022, 618, 241-247.	5.0	12
34	Packing structure of a two-dimensional granular system through the jamming transition. <i>Soft Matter</i> , 2010, 6, 2931.	1.2	11
35	Density fluctuations and energy spectra of 3D bacterial suspensions. <i>Soft Matter</i> , 2021, 17, 10806-10817.	1.2	11
36	Dynamic self-assembly of charged colloidal strings and walls in simple fluid flows. <i>Soft Matter</i> , 2017, 13, 1681-1692.	1.2	9

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37	Dynamics and scaling of explosion cratering in granular media. <i>AIChE Journal</i> , 2018, 64, 2972-2981.	1.8	6
38	Effect of edge disturbance on shear banding in polymeric solutions. <i>Journal of Rheology</i> , 2018, 62, 1339-1345.	1.3	6
39	Long-wavelength fluctuations and static correlations in quasi-2D colloidal suspensions. <i>Soft Matter</i> , 2019, 15, 4087-4097.	1.2	6
40	Formation of air bubbles during compaction of a granular pack. <i>Physics of Fluids</i> , 2008, 20, .	1.6	5
41	To cross or not to cross: Collective swimming of <i>Escherichia coli</i> under two-dimensional confinement. <i>Physical Review Research</i> , 2022, 4, .	1.3	5
42	Supercapacitive Strain Sensor With Ultrahigh Sensitivity and Range. , 2019, 3, 1-4.		4
43	Miniature magnetic rod interfacial stress rheometer for general-purpose microscopes. <i>Journal of Rheology</i> , 2021, 65, 1103-1110.	1.3	4
44	Dependency of active pressure and equation of state on stiffness of wall. <i>Scientific Reports</i> , 2021, 11, 22204.	1.6	4
45	Explosion cratering in 3D granular media. <i>Soft Matter</i> , 2020, 16, 1323-1332.	1.2	3
46	Dynamics of DNA-Bridged Dumbbells in Concentrated, Shear-Banding Polymer Solutions. <i>Macromolecules</i> , 2021, 54, 4186-4197.	2.2	3
47	Crack patterns of drying dense bacterial suspensions. <i>Soft Matter</i> , 2022, 18, 5239-5248.	1.2	2
48	Degradation and Breakdown of Polymer/Graphene Composites under Strong Electric Field. <i>Journal of Composites Science</i> , 2022, 6, 139.	1.4	1