

# Jianlin Liu

## List of Publications by Year in descending order

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82  
papers

900  
citations

471061

17  
h-index

580395

25  
g-index

90  
all docs

90  
docs citations

90  
times ranked

843  
citing authors

#	ARTICLE	IF	CITATIONS
1	A New Wetting Mechanism Based upon Triple Contact Line Pinning. <i>Langmuir</i> , 2011, 27, 196-200.	1.6	73
2	Capillarity-driven migration of small objects: A critical review. <i>European Physical Journal E</i> , 2019, 42, 1.	0.7	45
3	Surface effects on the mechanical properties of nanoporous materials. <i>Nanotechnology</i> , 2011, 22, 265714.	1.3	43
4	Modeling and simulation of droplet impact on elastic beams based on SPH. <i>European Journal of Mechanics, A/Solids</i> , 2019, 75, 237-257.	2.1	33
5	Nonlinear free vibration of a cantilever nanobeam with surface effects: Semi-analytical solutions. <i>International Journal of Mechanical Sciences</i> , 2016, 113, 184-195.	3.6	31
6	Enhancing Sodium Bis(2-ethylhexyl) Sulfosuccinate Injectivity for CO <sub>2</sub> Foam Formation in Low-Permeability Cores: Dissolving in CO <sub>2</sub> with Ethanol. <i>Energy &amp; Fuels</i> , 2018, 32, 5846-5856.	2.5	31
7	A new look on wetting models: continuum analysis. <i>Science China: Physics, Mechanics and Astronomy</i> , 2012, 55, 2158-2166.	2.0	26
8	Curvature-driven bubbles or droplets on the spiral surface. <i>Scientific Reports</i> , 2016, 6, 37888.	1.6	24
9	Theoretical analysis on capillary adhesion of micro-sized plates with a substrate. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2010, 26, 217-223.	1.5	23
10	Insights into adhesion of abalone: A mechanical approach. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 77, 331-336.	1.5	23
11	Foaming ability and stability of silica nanoparticle-based triple-phase foam for oil fire extinguishing: experimental. <i>Soft Materials</i> , 2018, 16, 327-338.	0.8	23
12	Thermal shock fracture of a crack in a functionally gradient half-space based on the memory-dependent heat conduction model. <i>Applied Mathematical Modelling</i> , 2020, 80, 840-858.	2.2	23
13	Jurin's law revisited: Exact meniscus shape and column height. <i>European Physical Journal E</i> , 2018, 41, 46.	0.7	22
14	Wetting and elasto-plasticity based sculpture of liquid marbles. <i>European Physical Journal E</i> , 2016, 39, 17.	0.7	21
15	Explicit solutions for a SWCNT collapse. <i>Archive of Applied Mechanics</i> , 2012, 82, 767-776.	1.2	20
16	Oil displacement by supercritical CO <sub>2</sub> in a water cut dead-end pore: Molecular dynamics simulation. <i>Journal of Petroleum Science and Engineering</i> , 2020, 188, 106899.	2.1	19
17	The load-bearing ability of a particle raft under the transverse compression of a slender rod. <i>Soft Matter</i> , 2017, 13, 2315-2321.	1.2	18
18	Stability and local bifurcation of parameter-excited vibration of pipes conveying pulsating fluid under thermal loading. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2015, 36, 1017-1032.	1.9	17

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19	Enhanced CDM model accounting of stress triaxiality and Lode angle for ductile damage prediction in metal forming. <i>International Journal of Damage Mechanics</i> , 2021, 30, 260-282.	2.4	16
20	Meniscus-induced motion of oil droplets. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 469, 252-255.	2.3	15
21	Near-post meniscus-induced migration and assembly of bubbles. <i>Soft Matter</i> , 2016, 12, 2221-2230.	1.2	15
22	Hard to be killed: Load-bearing capacity of the leech <i>Hirudo nipponia</i> . <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 86, 345-351.	1.5	14
23	Droplet impact induced large deflection of a cantilever. <i>Physics of Fluids</i> , 2019, 31, .	1.6	14
24	Thermal shock fracture associated with a unified fractional heat conduction. <i>European Journal of Mechanics, A/Solids</i> , 2021, 85, 104129.	2.1	14
25	Effective moduli of rocks predicted by the Kuster-Toksöz and Mori-Tanaka models. <i>Journal of Geophysics and Engineering</i> , 2021, 18, 539-557.	0.7	14
26	Biomimetic mechanics behaviors of the strider leg vertically pressing water. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	12
27	Capillary adhesion of a circular plate to solid: Large deformation and movable boundary condition. <i>International Journal of Mechanical Sciences</i> , 2017, 126, 222-228.	3.6	12
28	Quasi-static simulation of droplet morphologies using a smoothed particle hydrodynamics multiphase model. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2019, 35, 32-44.	1.5	12
29	Wettability enhancement of hydrophobic artificial sandstones by using the pulsed microwave plasma jet. <i>Colloids and Interface Science Communications</i> , 2020, 36, 100266.	2.0	12
30	Post-buckling behavior of a double-hinged rod under self-weight. <i>Acta Mechanica Solida Sinica</i> , 2013, 26, 197-204.	1.0	11
31	Non-classical hygrothermal fracture behavior of a hollow cylinder with a circumferential crack. <i>Engineering Fracture Mechanics</i> , 2020, 224, 106805.	2.0	11
32	Shakedown Behavior of Yellow River Alluvial Silt Stabilized with Lignin-Lime Combined Additive. <i>Journal of Materials in Civil Engineering</i> , 2020, 32, 04019318.	1.3	10
33	Droplet-induced anomalous deformation of a thin micro-plate. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012, 412, 108-119.	2.3	9
34	Elastica of a pendant droplet: Analytical solution in two dimension. <i>International Journal of Non-Linear Mechanics</i> , 2014, 58, 184-190.	1.4	9
35	Seed ejection mechanism in an <i>Oxalis</i> species. <i>Scientific Reports</i> , 2020, 10, 8855.	1.6	9
36	Mechanisms Underlying the Biological Wet Adhesion: Coupled Effects of Interstitial Liquid and Contact Geometry. <i>Journal of Bionic Engineering</i> , 2020, 17, 448-456.	2.7	8

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37	Size-dependent thermoelasticity of a finite bi-layered nanoscale plate based on nonlocal dual-phase-lag heat conduction and Eringen's nonlocal elasticity. Applied Mathematics and Mechanics (English) 2010, 31, 1073-1081.	1.0	7
38	Abnormal bending of micro-cantilever plate induced by a droplet. Acta Mechanica Solida Sinica, 2010, 23, 428-436.	1.0	7
39	Towards Understanding Why the Thin Membrane Transducer Deforms: Surface Stress-Induced Buckling. Acta Mechanica Solida Sinica, 2016, 29, 192-199.	1.0	7
40	Zero curvature-surface driven small objects. Applied Physics Letters, 2017, 111, .	1.5	7
41	Wrinkling number and force of a particle raft in compression. European Physical Journal E, 2019, 42, 147.	0.7	7
42	A Mechanics Study on the Self-Righting of Abalone from the Substrate. Applied Bionics and Biomechanics, 2020, 2020, 1-9.	0.5	7
43	Effect of slip on the contact-line instability of a thin liquid film flowing down a cylinder. Physical Review E, 2020, 101, 053108.	0.8	7
44	Thin-film evolution and fingering instability of self-wetting films flowing down an inclined plane. Physics of Fluids, 2021, 33, 022101.	1.6	7
45	Size effect on heat conduction and associate thermal fracture behavior of thin ceramic plates. Theoretical and Applied Fracture Mechanics, 2021, 113, 102951.	2.1	7
46	Self-folding of a slender microbeam and thin film: an elastica model. Journal of Mechanics of Materials and Structures, 2013, 8, 169-183.	0.4	6
47	Axisymmetric model of the sealing cylinder in service: analytical solutions. Journal of Mechanics, 2021, 37, 404-414.	0.7	6
48	The coëfficient effect of microstructures and mucus on the adhesion of abalone from a mechanical perspective. Biosurface and Biotribology, 2021, 7, 180-186.	0.6	6
49	A molecular dynamics simulation on the atomic mass sensor made of monolayer diamond. Nanotechnology, 2021, 32, 475501.	1.3	6
50	Tension and bending of the particle raft driven by a magnet. Colloids and Interface Science Communications, 2021, 45, 100528.	2.0	6
51	Surface effects at the nanoscale based on Gurtin's theory: a review. Journal of the Mechanical Behavior of Materials, 2014, 23, 141-151.	0.7	5
52	Droplet-induced deformation of a polymer microfiber. Journal of Applied Physics, 2013, 114, 044901.	1.1	4
53	A phase field based discrete fracture model (PFDFM) for fluid flow in fractured porous media. Journal of Petroleum Science and Engineering, 2020, 191, 107191.	2.1	4
54	Hygrothermoelastic response in a hollow cylinder considering dual-phase-lag heat-moisture coupling. Zeitschrift Fur Angewandte Mathematik Und Physik, 2020, 71, 1.	0.7	4

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55	Abnormal deformation and negative pressure of a hard magnetic disc under the action of a magnet. <i>Sensors and Actuators A: Physical</i> , 2021, 332, 113065.	2.0	4
56	Effect of the Water Film Rupture on the Oil Displacement by Supercritical CO <sub>2</sub> in the Nanopore: Molecular Dynamics Simulations. <i>Energy &amp; Fuels</i> , 2022, 36, 4348-4357.	2.5	4
57	A time-dependent Yeoh model to predict the corrosion effect of supercritical CO <sub>2</sub> on the HNBR sealing rubber. <i>Journal of Mechanical Science and Technology</i> , 2022, 36, 2461-2470.	0.7	4
58	Stability analysis of kinked DNA with generalized rod model. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2013, 47, 152-156.	1.3	3
59	The Analogy Study Method in Engineering Mechanics. <i>International Journal of Mechanical Engineering Education</i> , 2013, 41, 136-145.	0.6	3
60	Chemical mediated elasto-capillarity of elastic sheets. <i>Soft Matter</i> , 2017, 13, 8048-8054.	1.2	3
61	Buckling and Wrinkling: Valuable Topics in Mechanics Class. <i>Journal of Professional Issues in Engineering Education and Practice</i> , 2018, 144, .	0.9	3
62	Forced vibration of a bubble spring-mass system: Nonlinear analysis and experiment. <i>Applied Mathematical Modelling</i> , 2019, 70, 459-470.	2.2	3
63	The mechanics of abalone crawling on sharp objects without injury. <i>Scientific Reports</i> , 2019, 9, 3881.	1.6	3
64	Critical role of the bending stiffness of the monolayer black phosphorus in its mechanical behaviors: molecular dynamics simulation. <i>Nanotechnology</i> , 2021, 32, 145701.	1.3	3
65	Adhesion Behaviors of Abalone Under the Action of Water Flow. <i>Frontiers in Mechanical Engineering</i> , 2021, 7, .	0.8	3
66	Response mechanisms of snails to the pulling force and its potential application in vacuum suction. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 124, 104840.	1.5	3
67	Directional motion of the foam carrying oils driven by the magnetic field. <i>Scientific Reports</i> , 2021, 11, 21282.	1.6	3
68	Droplet-induced abnormal bending of micro-beams. <i>Journal of Adhesion Science and Technology</i> , 2013, 27, 1418-1431.	1.4	2
69	Capillarity-induced mechanical behaviors of a polymer microtube surrounded by a droplet. <i>AIP Advances</i> , 2014, 4, 127128.	0.6	2
70	Why a mosquito leg possesses superior load-bearing capacity on water: Experimentals. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2016, 32, 335-341.	1.5	2
71	Structure–property relationships of cell clusters in biotissues: 2D analysis. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 11603-11611.	1.3	2
72	Surface effects on the quasi-periodical free vibration of the nanobeam: semi-analytical solution based on the residue harmonic balance method. <i>Meccanica</i> , 2020, 55, 989-1005.	1.2	2

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73	Fracture Prediction for an Advanced High-Strength Steel Sheet Using the Fully Coupled Elastoplastic Damage Model with Stress-State Dependence. <i>Acta Mechanica Solida Sinica</i> , 2021, 34, 263-273.	1.0	2
74	Effect of yield surface distortion on the failure prediction of Mg alloy sheets. <i>Archive of Applied Mechanics</i> , 2021, 91, 151-167.	1.2	1
75	Thermocapillary Fingering of a Gravity-Driven Self-Rewetting Fluid Film Flowing Down a Vertical Slippery Wall. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2021, , .	0.8	1
76	Bio-inspired optimization design and fluid-solid-thermal multi-field verification analysis of labyrinth seal. <i>Materials and Design</i> , 2022, 220, 110907.	3.3	1
77	Towards a Unified Route in Mechanics Based on the Second-Order Real Symmetric Tensor. <i>International Journal of Mechanical Engineering Education</i> , 2014, 42, 166-174.	0.6	0
78	Nonlinear Vibration of an Elastic Soft String: Large Amplitude and Large Curvature. <i>Mathematical Problems in Engineering</i> , 2018, 2018, 1-11.	0.6	0
79	Adhesion and peeling of a Fugu coal molecule on a graphene substrate: molecular dynamics simulations. <i>Science China: Physics, Mechanics and Astronomy</i> , 2020, 63, 1.	2.0	0
80	Capillary Adhesion of Micro-beams and Plates: A Review. , 2012, , 259-276.		0
81	Molecular Dynamics Simulation of the Effects of Methane Hydrate Phase Transition on Mechanical Properties of Deep-Sea Methane Hydrate-Bearing Soil. <i>Advances in Civil Engineering</i> , 2021, 2021, 1-10.	0.4	0
82	Tensile fatigue behaviour and life distribution model of the pultruded fibre reinforced composites. <i>Polymers and Polymer Composites</i> , 2022, 30, 096739112210837.	1.0	0