

Yuan-Nan Young

List of Publications by Year in descending order

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66
papers

1,692
citations

331259

21
h-index

288905

40
g-index

71
all docs

71
docs citations

71
times ranked

1282
citing authors

#	ARTICLE	IF	CITATIONS
1	An arbitrary Lagrangian-Eulerian method for simulating interfacial dynamics between a hydrogel and a fluid. <i>Journal of Computational Physics</i> , 2022, 451, 110851.	1.9	4
2	The effect of rigid cells on blood viscosity: linking rheology and sickle cell anemia. <i>Soft Matter</i> , 2022, 18, 554-565.	1.2	3
3	Two-dimensional hydrodynamics of a Janus particle vesicle. <i>Journal of Fluid Mechanics</i> , 2022, 941, .	1.4	2
4	The effects of surface hydration on capillary adhesion under nanoscale confinement. <i>Soft Matter</i> , 2022, 18, 4786-4791.	1.2	1
5	Gait switching and targeted navigation of microswimmers via deep reinforcement learning. <i>Communications Physics</i> , 2022, 5, .	2.0	21
6	Primary cilium: a paradigm for integrating mathematical modeling with experiments and numerical simulations in mechanobiology. <i>Mathematical Biosciences and Engineering</i> , 2021, 18, 1215-1237.	1.0	3
7	Effects of surfactant solubility on the hydrodynamics of a viscous drop in a dc electric field. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	3
8	Mechanical rotation at low Reynolds number via reinforcement learning. <i>Physics of Fluids</i> , 2021, 33, .	1.6	13
9	Hydrodynamics of a semipermeable inextensible membrane under flow and confinement. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	8
10	Wall-induced translation of a rotating particle in a shear-thinning fluid. <i>Journal of Fluid Mechanics</i> , 2021, 927, .	1.4	5
11	Primary cilia have a length-dependent persistence length. <i>Biomechanics and Modeling in Mechanobiology</i> , 2020, 19, 445-460.	1.4	8
12	Simulation of Multiscale Hydrophobic Lipid Dynamics via Efficient Integral Equation Methods. <i>Multiscale Modeling and Simulation</i> , 2020, 18, 79-103.	0.6	4
13	Boundary conditions at a gel-fluid interface. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	10
14	Effects of surfactant transport on electrodeformation of a viscous drop. <i>Physical Review E</i> , 2019, 99, 063104.	0.8	9
15	Slightly deformable Darcy drop in linear flows. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	7
16	Hydrodynamics and rheology of a vesicle doublet suspension. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	8
17	From electrodiffusion theory to the electrohydrodynamics of leaky dielectrics through the weak electrolyte limit. <i>Journal of Fluid Mechanics</i> , 2018, 855, 67-130.	1.4	25
18	Lennard-Jones type pair-potential method for coarse-grained lipid bilayer membrane simulations in LAMMPS. <i>Computer Physics Communications</i> , 2017, 210, 193-203.	3.0	33

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19	Long-wave dynamics of an elastic sheet lubricated by a thin liquid film on a wetting substrate. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	7
20	Theoretical, Computational, and Experimental Investigations on Activation of Mechanosensitive Channels. <i>Biophysical Journal</i> , 2016, 110, 93a.	0.2	0
21	Continuum Modeling of the Gating Mechanisms of a Mechanosensitive (MS) Channel: Bacterial MS versus Mammalian MS Channels. <i>Biophysical Journal</i> , 2016, 110, 93a.	0.2	0
22	Vesicle electrohydrodynamic simulations by coupling immersed boundary and immersed interface method. <i>Journal of Computational Physics</i> , 2016, 317, 66-81.	1.9	24
23	Electrohydrodynamics of a viscous drop with inertia. <i>Physical Review E</i> , 2016, 93, 053114.	0.8	23
24	On the gating of mechanosensitive channels by fluid shear stress. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2016, 32, 1012-1022.	1.5	11
25	Efficient Brownian dynamics simulation of DNA molecules with hydrodynamic interactions in linear flows. <i>Physical Review E</i> , 2015, 91, 063008.	0.8	2
26	An Immersed Interface Method for Axisymmetric Electrohydrodynamic Simulations in Stokes flow. <i>Communications in Computational Physics</i> , 2015, 18, 429-449.	0.7	10
27	The primary cilium is a self-adaptable, integrating nexus for mechanical stimuli and cellular signaling. <i>Biology Open</i> , 2015, 4, 1733-1738.	0.6	18
28	Gating of a mechanosensitive channel due to cellular flows. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 9822-9827.	3.3	27
29	Electrohydrodynamic instability of a capacitive elastic membrane. <i>Physics of Fluids</i> , 2015, 27, .	1.6	6
30	Near-wall dynamics of concentrated hard-sphere suspensions: comparison of evanescent wave DLS experiments, virial approximation and simulations. <i>Soft Matter</i> , 2015, 11, 7316-7327.	1.2	8
31	Coupling a Mechanosensitive Channel with a Vesicle under Shear Flow. <i>Biophysical Journal</i> , 2015, 108, 458a.	0.2	0
32	A hybrid immersed boundary and immersed interface method for electrohydrodynamic simulations. <i>Journal of Computational Physics</i> , 2015, 282, 47-61.	1.9	43
33	Long-wave dynamics of an inextensible planar membrane in an electric field. <i>Journal of Fluid Mechanics</i> , 2014, 751, 406-431.	1.4	8
34	Equilibrium electro-deformation of a surfactant-laden viscous drop. <i>Physics of Fluids</i> , 2013, 25, .	1.6	35
35	Dynamics of the Primary Cilium in Shear Flow. <i>Biophysical Journal</i> , 2013, 104, 152a.	0.2	4
36	Equilibrium electrodeformation of a spheroidal vesicle in an ac electric field. <i>Physical Review E</i> , 2013, 88, 052718.	0.8	19

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37	Dynamics of the Primary Cilium in Shear Flow. <i>Biophysical Journal</i> , 2012, 103, 629-639.	0.2	48
38	Modeling a semi-flexible filament in cellular Stokes flow using regularized Stokeslets. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2011, 27, 2021-2034.	1.0	14
39	Dynamics of a Compound Vesicle in Shear Flow. <i>Physical Review Letters</i> , 2011, 106, 158103.	2.9	35
40	Dynamics of a non-spherical microcapsule with incompressible interface in shear flow. <i>Journal of Fluid Mechanics</i> , 2011, 678, 221-247.	1.4	66
41	Nonlinear hydrodynamic phenomena in Stokes flow regime. <i>Physica D: Nonlinear Phenomena</i> , 2010, 239, 1214-1224.	1.3	14
42	Dynamics of a semiflexible polar filament in Stokes flow. <i>Physical Review E</i> , 2010, 82, 016309.	0.8	3
43	Hydrodynamic interactions between two semiflexible inextensible filaments in Stokes flow. <i>Physical Review E</i> , 2009, 79, 046317.	0.8	12
44	Influence of surfactant solubility on the deformation and breakup of a bubble or capillary jet in a viscous fluid. <i>Physics of Fluids</i> , 2009, 21, .	1.6	19
45	Influence of insoluble surfactant on the deformation and breakup of a bubble or thread in a viscous fluid. <i>Journal of Fluid Mechanics</i> , 2008, 594, 307-340.	1.4	35
46	Hysteretic and chaotic dynamics of viscous drops in creeping flows with rotation. <i>Journal of Fluid Mechanics</i> , 2008, 607, 209-234.	1.4	17
47	Stretch-Coil Transition and Transport of Fibers in Cellular Flows. <i>Physical Review Letters</i> , 2007, 99, 058303.	2.9	90
48	Limits of the potential flow approach to the single-mode Rayleigh-Taylor problem. <i>Physical Review E</i> , 2006, 74, 066308.	0.8	70
49	Surface tension in incompressible Rayleigh-Taylor mixing flow. <i>Journal of Turbulence</i> , 2006, 7, N71.	0.5	24
50	Stratified Kolmogorov flow. Part 2. <i>Journal of Fluid Mechanics</i> , 2005, 528, 23-42.	1.4	29
51	Registration-Based Morphing of Active Contours for Segmentation of CT Scans. <i>Mathematical Biosciences and Engineering</i> , 2005, 2, 79-96.	1.0	32
52	Weakly nonlinear analysis of wind-driven gravity waves. <i>Journal of Fluid Mechanics</i> , 2004, 503, 171-200.	1.4	7
53	A comparative study of the turbulent Rayleigh-Taylor instability using high-resolution three-dimensional numerical simulations: The Alpha-Group collaboration. <i>Physics of Fluids</i> , 2004, 16, 1668-1693.	1.6	381
54	Induced defect nucleation and side-band instabilities in hexagons with rotation and mean flow. <i>Physica D: Nonlinear Phenomena</i> , 2003, 176, 107-124.	1.3	6

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55	Penta-Hepta Defect Chaos in a Model for Rotating Hexagonal Convection. <i>Physical Review Letters</i> , 2003, 90, 134502.	2.9	21
56	Whirling hexagons and defect chaos in hexagonal non-Boussinesq convection. <i>New Journal of Physics</i> , 2003, 5, 135-135.	1.2	9
57	Temperature statistics in two-dimensional stably stratified turbulence. <i>Physical Review E</i> , 2002, 66, 016306.	0.8	1
58	Shear instability of fluid interfaces: Stability analysis. <i>Physical Review E</i> , 2002, 65, 026313.	0.8	22
59	On the C/O Enrichment of Nova Ejecta. <i>Astrophysical Journal</i> , 2002, 562, L177-L179.	1.6	52
60	Stratified Kolmogorov flow. <i>Journal of Fluid Mechanics</i> , 2002, 450, 131-167.	1.4	61
61	Mean flow in hexagonal convection: stability and nonlinear dynamics. <i>Physica D: Nonlinear Phenomena</i> , 2002, 163, 166-183.	1.3	17
62	On the miscible Rayleigh-Taylor instability: two and three dimensions. <i>Journal of Fluid Mechanics</i> , 2001, 447, 377-408.	1.4	144
63	Numerical simulation of double-diffusive convection in a rectangular box. <i>Physical Review E</i> , 2000, 61, 2676-2694.	0.8	5
64	Flash code: studying astrophysical thermonuclear flashes. <i>Computing in Science and Engineering</i> , 2000, 2, 33-41.	1.2	27
65	Linear and weakly nonlinear analysis of doubly diffusive vertical slot convection. <i>Physical Review E</i> , 1998, 57, 5554-5563.	0.8	12
66	Linear stability analysis of doubly diffusive vertical slot convection. <i>Physical Review E</i> , 1998, 57, 1183-1186.	0.8	4