

# Anthony J C Ladd

## List of Publications by Year in Descending Order

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**Version:** 2024-04-27

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

67  
papers

7,947  
citations

33  
h-index

68  
g-index

68  
ext. papers

8,568  
ext. citations

4  
avg, IF

6.27  
L-index

#	Paper	IF	Citations
67	Reactive Flows in Porous Media: Challenges in Theoretical and Numerical Methods. <i>Annual Review of Chemical and Biomolecular Engineering</i> , <b>2021</b> , 12, 543-571	8.9	6
66	Electro-hydrodynamic extraction of DNA from mixtures of DNA and bovine serum albumin. <i>Analyst, The</i> , <b>2020</b> , 145, 5532-5538	5	1
65	Simulation of mineral dissolution at the pore scale with evolving fluid-solid interfaces: review of approaches and benchmark problem set. <i>Computational Geosciences</i> , <b>2020</b> , 25, 1285	2.7	42
64	Time-dependent shapes of a dissolving mineral grain: Comparisons of simulations with microfluidic experiments. <i>Chemical Geology</i> , <b>2020</b> , 540, 119459	4.2	14
63	Dissolution of a cylindrical disk in Hele-Shaw flow: a conformal-mapping approach. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 903,	3.7	6
62	Transverse migration and microfluidic concentration of DNA using Newtonian buffers. <i>Biomicrofluidics</i> , <b>2019</b> , 13, 044104	3.2	6
61	Discussion of Analytical Solution for Dissolution-Timescale Reactive Transport in Fluid-Saturated Porous Rocks by Chongbin Zhao, B. E. Hobbs, and A. Ord. <i>International Journal of Geomechanics</i> , <b>2019</b> , 19, 07019003	3.1	
60	Trapping DNA with a high throughput microfluidic device. <i>Electrophoresis</i> , <b>2019</b> , 40, 437-446	3.6	10
59	The Development of Wormholes in Laboratory-Scale Fractures: Perspectives From Three-Dimensional Simulations. <i>Water Resources Research</i> , <b>2018</b> , 54, 7946-7959	5.4	27
58	Use and misuse of large-density asymptotics in the reaction-infiltration instability. <i>Water Resources Research</i> , <b>2017</b> , 53, 2419-2430	5.4	11
57	Instabilities and finger formation in replacement fronts driven by an oversaturated solution. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2017</b> , 122, 5972-5991	3.6	7
56	Electro-hydrodynamic concentration of genomic length DNA. <i>Soft Matter</i> , <b>2016</b> , 12, 6975-84	3.6	13
55	Transient Pinning and Pulling: A Mechanism for Bending Microtubules. <i>PLoS ONE</i> , <b>2016</b> , 11, e0151322	3.7	15
54	Three-dimensional simulations of fracture dissolution. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2016</b> , 121, 6421-6444	3.6	40
53	Lattice-Boltzmann methods for suspensions of solid particles. <i>Molecular Physics</i> , <b>2015</b> , 113, 2531-2537	1.7	19
52	Initial conditions or emergence: What determines dissolution patterns in rough fractures?. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2015</b> , 120, 6102-6121	3.6	42
51	Synchronization of dissolution and precipitation fronts during infiltration-driven replacement in porous rocks. <i>Geophysical Research Letters</i> , <b>2015</b> , 42, 2244-2252	4.9	13

50	Transverse migration of polyelectrolytes in microfluidic channels induced by combined shear and electric fields. <i>Soft Matter</i> , <b>2015</b> , 11, 4375-82	3.6	15
49	Reactive-infiltration instabilities in rocks. Part 2. Dissolution of a porous matrix. <i>Journal of Fluid Mechanics</i> , <b>2014</b> , 738, 591-630	3.7	49
48	Capillary-assembled straight microfluidic devices. <i>RSC Advances</i> , <b>2014</b> , 4, 1083-1086	3.7	2
47	FLUCTUATING MOTOR FORCES BEND GROWING MICROTUBULES. <i>Cellular and Molecular Bioengineering</i> , <b>2013</b> , 6, 120-129	3.9	10
46	Reactive-infiltration instabilities in rocks. Fracture dissolution. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 702, 239-264	3.7	59
45	Mechanics of Vorticella contraction. <i>Biophysical Journal</i> , <b>2010</b> , 98, 2923-32	2.9	17
44	Role of hydrodynamic interactions in the migration of polyelectrolytes driven by a pressure gradient and an electric field. <i>Physical Review E</i> , <b>2010</b> , 82, 050803	2.4	21
43	Comparison of lattice-Boltzmann and brownian-dynamics simulations of polymer migration in confined flows. <i>Physical Review E</i> , <b>2010</b> , 82, 011802	2.4	27
42	Comparison of the static and dynamic properties of a semiflexible polymer using lattice Boltzmann and Brownian-dynamics simulations. <i>Physical Review E</i> , <b>2009</b> , 80, 036704	2.4	27
41	A symplectic integration method for elastic filaments. <i>Journal of Chemical Physics</i> , <b>2009</b> , 130, 124909	3.9	2
40	Particle dynamics and pattern formation in a rotating suspension. <i>Journal of Fluid Mechanics</i> , <b>2007</b> , 577, 183-209	3.7	10
39	Kinetic theory of a confined polymer driven by an external force and pressure-driven flow. <i>Physics of Fluids</i> , <b>2007</b> , 19, 113101	4.4	32
38	Transverse migration of a confined polymer driven by an external force. <i>Physical Review Letters</i> , <b>2007</b> , 98, 098301	7.4	54
37	Flow-induced migration of polymers in dilute solution. <i>Physics of Fluids</i> , <b>2006</b> , 18, 031703	4.4	80
36	Sedimentation of hard-sphere suspensions at low Reynolds number. <i>Journal of Fluid Mechanics</i> , <b>2005</b> , 525, 73-104	3.7	100
35	Rheology of suspensions with high particle inertia and moderate fluid inertia. <i>Journal of Fluid Mechanics</i> , <b>2003</b> , 480, 95-118	3.7	111
34	Axial segregation in a cylindrical centrifuge. <i>Physical Review Letters</i> , <b>2002</b> , 89, 104301	7.4	21
33	A computer simulation study of multiphase squeezing flows. <i>Physics of Fluids</i> , <b>2002</b> , 14, 1631-1641	4.4	5

32	The first effects of fluid inertia on flows in ordered and random arrays of spheres. <i>Journal of Fluid Mechanics</i> , <b>2001</b> , 448, 213-241	3.7	296
31	Moderate-Reynolds-number flows in ordered and random arrays of spheres. <i>Journal of Fluid Mechanics</i> , <b>2001</b> , 448, 243-278	3.7	354
30	Finite-element modeling of trabecular bone: comparison with mechanical testing and determination of tissue modulus. <i>Journal of Orthopaedic Research</i> , <b>1998</b> , 16, 622-8	3.8	136
29	Deformation and failure in cellular materials. <i>Physical Review E</i> , <b>1997</b> , 55, 3271-3275	2.4	55
28	Moderate Reynolds number flows through periodic and random arrays of aligned cylinders. <i>Journal of Fluid Mechanics</i> , <b>1997</b> , 349, 31-66	3.7	208
27	Hydrodynamic screening in sedimenting suspensions of non-Brownian spheres. <i>Physical Review Letters</i> , <b>1996</b> , 76, 1392-1395	7.4	101
26	Temporal and spatial dependence of hydrodynamic correlations: Simulation and experiment. <i>Physical Review E</i> , <b>1995</b> , 52, 6550-6572	2.4	47
25	Time-dependent collective diffusion of colloidal particles. <i>Physical Review Letters</i> , <b>1995</b> , 74, 318-321	7.4	54
24	Numerical simulations of particulate suspensions via a discretized Boltzmann equation. Part 2. Numerical results. <i>Journal of Fluid Mechanics</i> , <b>1994</b> , 271, 311-339	3.7	899
23	Numerical simulations of particulate suspensions via a discretized Boltzmann equation. Part 1. Theoretical foundation. <i>Journal of Fluid Mechanics</i> , <b>1994</b> , 271, 285-309	3.7	1615
22	Dynamical simulations of sedimenting spheres. <i>Physics of Fluids A, Fluid Dynamics</i> , <b>1993</b> , 5, 299-310		96
21	Computer simulation studies of static and dynamical scaling in dilute solutions of excluded-volume polymers. <i>Macromolecules</i> , <b>1992</b> , 25, 3435-3438	5.5	14
20	Self-diffusion of colloidal particles in a two-dimensional suspension: Are deviations from Fick's law experimentally observable?. <i>Physical Review Letters</i> , <b>1991</b> , 67, 3459-3462	7.4	32
19	Dissipative hydrodynamic interactions via lattice-gas cellular automata. <i>Physics of Fluids A, Fluid Dynamics</i> , <b>1990</b> , 2, 1921-1924		24
18	Location of melting point at 300 K of nitrogen by Monte Carlo simulation. <i>Journal of Chemical Physics</i> , <b>1990</b> , 92, 7570-7575	3.9	68
17	Hydrodynamic transport coefficients of random dispersions of hard spheres. <i>Journal of Chemical Physics</i> , <b>1990</b> , 93, 3484-3494	3.9	286
16	Decay of angular correlations in hard-sphere fluids. <i>Journal of Statistical Physics</i> , <b>1989</b> , 57, 473-482	1.5	8
15	Hydrodynamic interactions and the viscosity of suspensions of freely moving spheres. <i>Journal of Chemical Physics</i> , <b>1989</b> , 90, 1149-1157	3.9	43

14	Hydrodynamic interactions in a suspension of spherical particles. <i>Journal of Chemical Physics</i> , <b>1988</b> , 88, 5051-5063	3.9	131
13	Application of lattice-gas cellular automata to the Brownian motion of solids in suspension. <i>Physical Review Letters</i> , <b>1988</b> , 60, 975-978	7.4	53
12	Elastic constants of hard-sphere crystals. <i>Physical Review Letters</i> , <b>1987</b> , 59, 1169	7.4	61
11	Structural relaxation in dense hard-sphere fluids. <i>Journal of Statistical Physics</i> , <b>1987</b> , 48, 1147-1156	1.5	28
10	Lattice thermal conductivity: A comparison of molecular dynamics and anharmonic lattice dynamics. <i>Physical Review B</i> , <b>1986</b> , 34, 5058-5064	3.3	272
9	Lorentz gas shear viscosity via nonequilibrium molecular dynamics and Boltzmann's equation. <i>Journal of Statistical Physics</i> , <b>1985</b> , 38, 973-988	1.5	38
8	New Monte Carlo method to compute the free energy of arbitrary solids. Application to the fcc and hcp phases of hard spheres. <i>Journal of Chemical Physics</i> , <b>1984</b> , 81, 3188-3193	3.9	945
7	Nonequilibrium molecular dynamics via Gauss's principle of least constraint. <i>Physical Review A</i> , <b>1983</b> , 28, 1016-1021	2.6	362
6	Plastic flow in close-packed crystals via nonequilibrium molecular dynamics. <i>Physical Review B</i> , <b>1983</b> , 28, 1756-1762	3.3	19
5	High-Strain-Rate Plastic Flow Studied via Nonequilibrium Molecular Dynamics. <i>Physical Review Letters</i> , <b>1982</b> , 48, 1818-1820	7.4	427
4	Energy and entropy of interacting dislocations. <i>Physical Review B</i> , <b>1982</b> , 26, 5469-5479	3.3	22
3	High-pressure mechanical instability in close-packed Hooke-law crystals. <i>Journal of Chemical Physics</i> , <b>1981</b> , 74, 1337-1339	3.9	13
2	Bulk viscosity via nonequilibrium and equilibrium molecular dynamics. <i>Physical Review A</i> , <b>1980</b> , 21, 1756-1760	7.1	71
1	Lennard-Jones triple-point bulk and shear viscosities. Green-Kubo theory, Hamiltonian mechanics, and nonequilibrium molecular dynamics. <i>Physical Review A</i> , <b>1980</b> , 22, 1690-1697	2.6	255