Eric Clement

List of Publications by Year
in descending order

79 papers	4,471 citations	109264 35 h-index	98753 67 g-index
80 all docs	80 docs citations	80 times ranked	2622 citing authors

#	Article	IF	Citations
1	Run-to-Tumble Variability Controls the Surface Residence Times of E. coli Bacteria. Physical Review Letters, 2022, 128, .	2.9	12
2	Single-trajectory characterization of active swimmers in a flow. Physical Review E, 2021, 103, 032608.	0.8	3
3	Chirality-induced bacterial rheotaxis in bulk shear flows. Science Advances, 2020, 6, eabb2012.	4.7	31
4	3D Spatial Exploration by E. coli Echoes Motor Temporal Variability. Physical Review X, 2020, 10, .	2.8	14
5	E. coli â€œsuper-contaminatesâ€•narrow ducts fostered by broad run-time distribution. Science Advances, 2020, 6, eaay0155.	4.7	29
6	A combined rheometry and imaging study of viscosity reduction in bacterial suspensions. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2326-2331.	3.3	42
7	Oscillatory surface rheotaxis of swimming E. coli bacteria. Nature Communications, 2019, 10, 3434.	5.8	73
8	Swimming bacteria in Poiseuille flow: The quest for active Bretherton-Jeffery trajectories. Europhysics Letters, 2019, 126, 44003.	0.7	29
9	Magnetotactic bacteria in a droplet self-assemble into a rotary motor. Nature Communications, 2019, 10, 5082.	5.8	41
10	Effect of motility on the transport of bacteria populations through a porous medium. Physical Review Fluids, 2019, 4, .	1.0	30
11	Actuated rheology of magnetic micro-swimmers suspensions: Emergence of motor and brake states. Physical Review Fluids, 2018, 3, .	1.0	9
12	<i>E coli</i> Accumulation behind an Obstacle. Advances in Microbiology, 2018, 08, 451-464.	0.3	21
13	Non-local rheology of dense granular flows. EPJ Web of Conferences, 2017, 140, 11013.	0.1	3
14	Rheology of granular flows across the transition from soft to rigid particles. Physical Review Fluids, 2017, 2, .	1.0	30
15	Relaxation processes after instantaneous shear rate reversal in a dense granular flow. EPJ Web of Conferences, 2017, 140, 03010.	0.1	0
16	Active dry granular flows: Rheology and rigidity transitions. Europhysics Letters, 2016, 116, 14001.	0.7	10
17	Bacterial suspensions under flow. European Physical Journal: Special Topics, 2016, 225, 2389-2406.	1.2	26
18	Mechanical fluctuations suppress the threshold of soft-glassy solids: The secular drift scenario. Physical Review E, 2015, 92, 020201.	0.8	15

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19	Microrheology to probe non-local effects in dense granular flows. Europhysics Letters, 2015, 109, 24002.	0.7	17
20	Turning Bacteria Suspensions into Superfluids. Physical Review Letters, 2015, 115, 028301.	2.9	249
21	Athermal analogue of sheared dense Brownian suspensions. Europhysics Letters, 2015, 111, 18001.	0.7	16
22	Living on the edge: transfer and traffic of E. coli in a confined flow. Soft Matter, 2015, 11, 6284-6293.	1.2	59
23	Non-local rheology in dense granular flows. European Physical Journal E, 2015, 38, 125.	0.7	112
24	Stripe formation in horizontally oscillating granular suspensions. Europhysics Letters, 2014, 107, 34006.	0.7	16
25	Clogging transition of many-particle systems flowing through bottlenecks. Scientific Reports, 2014, 4, 7324.	1.6	237
26	Particles accelerate the detachment of viscous liquids. Rheologica Acta, 2013, 52, 403-412.	1.1	35
27	Non-Newtonian Viscosity ofEscherichia coliSuspensions. Physical Review Letters, 2013, 110, 268103.	2.9	145
28	Nonlocal Rheology of Granular Flows across Yield Conditions. Physical Review Letters, 2013, 111, 238301.	2.9	181
29	Accelerated drop detachment in granular suspensions. Physics of Fluids, 2012, 24, .	1.6	66
30	Hot Spots in an Athermal System. Physical Review Letters, 2012, 108, 135502.	2.9	83
31	A two-sphere model for bacteria swimming near solid surfaces. Physics of Fluids, 2012, 24, .	1.6	36
32	Local dynamics and synchronization in a granular glass. Granular Matter, 2012, 14, 239-245.	1.1	2
33	Enhanced Diffusion due to Active Swimmers at a Solid Surface. Physical Review Letters, 2011, 106, 048102.	2.9	178
34	Creep and Fluidity of a Real Granular Packing near Jamming. Physical Review Letters, 2011, 107, 138303.	2.9	74
35	Mesoscopic Length Scale Controls the Rheology of Dense Suspensions. Physical Review Letters, 2010, 105, 108302.	2.9	28
36	Surface wave acoustics of granular packing under gravity. , 2009, , .		0

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37	Nonlocal rheological properties of granular flows near a jamming limit. Physical Review E, 2008, 78, 031303.	0.8	42
38	Spreading of a granular droplet. Physical Review E, 2007, 76, 060301.	0.8	18
39	Erosive granular avalanches: a cross confrontation between theory and experiment. Granular Matter, 2007, 10, 3-11.	1.1	9
40	Confined suspension jet and long-range hydrodynamic interactions: A destabilization scenario. Physics of Fluids, 2006, 18, 083301.	1.6	4
41	Transverse instability of avalanches in granular flows down an incline. Physical Review E, 2006, 73, 050302.	0.8	39
42	Free surface instability in a confined suspension jet. Physica A: Statistical Mechanics and Its Applications, 2005, 356, 196-201.	1.2	1
43	Reorganization of a dense granular assembly: The unjamming response function. Physical Review E, 2004, 69, 031306.	0.8	46
44	Greenâ€™s function measurements of force transmission in 2D granular materials. Physica D: Nonlinear Phenomena, 2003, 182, 274-303.	1.3	144
45	Erosion patterns in a sediment layer. Physical Review E, 2003, 67, 065201.	0.8	34
46	The stress response function in granular materials. Comptes Rendus Physique, 2002, 3, 141-151.	0.3	10
47	Green's Function Probe of a Static Granular Piling. Physical Review Letters, 2001, 86, 3308-3311.	2.9	81
48	Rheology of a confined granular material. Physical Review E, 2001, 64, 060302.	0.8	31
49	Pattern Formation in a Vibrated Granular Layer. Lecture Notes in Physics, 2001, , 233-243.	0.3	6
50	Science in the Sandbox: Fluctuations, Friction and Instabilities. Lecture Notes in Physics, 2001, , 351-391.	0.3	3
51	Wavelength Selection in a Vibrated Granular Layer. Materials Research Society Symposia Proceedings, 2000, 627, 1.	0.1	0
52	Rheology of a granular column. Materials Research Society Symposia Proceedings, 2000, 627, 1.	0.1	0
53	Mechanical response of a static granular piling. Materials Research Society Symposia Proceedings, 2000, 627, 1.	0.1	0
54	Stresses in Silos: Comparison Between Theoretical Models and New Experiments. Physical Review Letters, 2000, 84, 1439-1442.	2.9	119

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55	A Multi-Agent Based Simulation of Sand Piles in a Static Equilibrium. Lecture Notes in Computer Science, 2000, , 108-118.	1.0	5
56	Patterns of fragmentation for polymer coatings. Journal of Macromolecular Science - Physics, 1999, 38, 971-980.	0.4	13
57	Rheology of granular media. Current Opinion in Colloid and Interface Science, 1999, 4, 294-299.	3.4	25
58	Memories in sand: Experimental tests of construction history on stress distributions under sandpiles. Physical Review E, 1999, 60, R5040-R5043.	0.8	237
59	Stochastic Aspects of the Force Network in a Regular Granular Piling. Journal De Physique, I, 1997, 7, 1541-1558.	1.2	24
60	Simulations of pattern formation in vibrated granular media. Europhysics Letters, 1996, 36, 247-252.	0.7	122
61	Pattern formation in a vibrated two-dimensional granular layer. Physical Review E, 1996, 53, 2972-2975.	0.8	117
62	Generalized monomer-monomer model for catalysis. Physical Review E, 1995, 52, 5997-6005.	0.8	5
63	Mixing of a Granular Material in a Bidimensional Rotating Drum. Europhysics Letters, 1995, 30, 7-12.	0.7	122
64	Trigger waves in a model for catalysis. Physical Review E, 1995, 52, 5904-5909.	0.8	41
65	Statistical Models for Surface Catalysis: Evidence for Anomalous Reaction Rates. The Journal of Physical Chemistry, 1994, 98, 7274-7277.	2.9	8
66	Anomalous energy dissipation in molecular-dynamics simulations of grains: The â€˜â€˜detachmentâ€™â€™ effect. Physical Review E, 1994, 50, 4113-4122.	0.8	124
67	Catalysis on a fractal lattice: A model for poisoning. Physical Review E, 1994, 49, 4857-4864.	0.8	10
68	Studies of columns of beads under external vibrations. Physical Review E, 1994, 49, 1634-1646.	0.8	197
69	Decompaction modes of a two-dimensional â€˜â€˜sandpileâ€™â€™ under vibration: Model and experiments. Physical Review E, 1994, 50, 3092-3099.	0.8	36
70	Size segregation in a two-dimensional sandpile: Convection and arching effects. Physical Review E, 1994, 50, 5138-5141.	0.8	98
71	Anomalous Steady-State Properties of Long-Range A + A .fwdarw. 0 Reactions. The Journal of Physical Chemistry, 1994, 98, 7390-7394.	2.9	14
72	Arching effect model for particle size segregation. Physical Review Letters, 1993, 70, 2431-2434.	2.9	220

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73	Exact Dynamics in a Model of the Bimolecular Reaction A+Bâ†' 0. Materials Research Society Symposia Proceedings, 1992, 290, 345.	0.1	0
74	Experimental study of heaping in a two-dimensional â€˜â€˜sand pileâ€™â€™. Physical Review Letters, 1992, 69, 1189-1192.	2.9	187
75	Fluidization of a Bidimensional Powder. Europhysics Letters, 1991, 16, 133-138.	0.7	148
76	Bimolecular Diffusion-Limited Reaction Kinetics at Steady-State. NATO ASI Series Series B: Physics, 1991, , 431-436.	0.2	0
77	Source-term and excluded-volume effects on the diffusion-controlled A+Bâ†'0 reaction in one dimension: Rate laws and particle distributions. Physical Review A, 1989, 39, 6455-6465.	1.0	80
78	Steady-state diffusion-controlled A+Aâ†'0 reaction in Euclidean and fractal dimensions: Rate laws and particle self-ordering. Physical Review A, 1989, 39, 6472-6477.	1.0	54
79	Steady-state diffusion-controlled A+Bâ†'0 reactions in two and three dimensions: Rate laws and particle distributions. Physical Review A, 1989, 39, 6466-6471.	1.0	43