

# Luca Angelani

## List of Publications by Year in descending order

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Version: 2024-02-01

81  
papers

3,721  
citations

126708

33  
h-index

128067

60  
g-index

83  
all docs

83  
docs citations

83  
times ranked

2580  
citing authors

#	ARTICLE	IF	CITATIONS
1	Alignment interactions drive structural transitions in biological tissues. <i>Physical Review E</i> , 2021, 104, 044606.	0.8	7
2	On fractional Cattaneo equation with partially reflecting boundaries. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2020, 53, 085204.	0.7	9
3	Lattice model for active flows in microchannels. <i>Physical Review E</i> , 2020, 102, 062602.	0.8	1
4	Narrow-escape time and sorting of active particles in circular domains. <i>Physical Review E</i> , 2020, 102, 042617.	0.8	15
5	Probing the Debye spectrum in glasses using small system sizes. <i>Physical Review Research</i> , 2020, 2, .	1.3	5
6	Relation between Heterogeneous Frozen Regions in Supercooled Liquids and Non-Debye Spectrum in the Corresponding Glasses. <i>Physical Review Letters</i> , 2019, 123, 155502.	2.9	11
7	Run-and-tumble motion in one dimension with space-dependent speed. <i>Physical Review E</i> , 2019, 100, 052147.	0.8	12
8	Spontaneous assembly of colloidal vesicles driven by active swimmers. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 075101.	0.7	9
9	Probability distributions for the run-and-tumble models with variable speed and tumbling rate. <i>Modern Stochastics: Theory and Applications</i> , 2019, , 3-12.	0.2	8
10	Low-frequency excitations and their localization properties in glasses. <i>Condensed Matter Physics</i> , 2019, 22, 43608.	0.3	0
11	Currents and flux-inversion in photokinetic active particles. <i>Soft Matter</i> , 2018, 14, 4958-4962.	1.2	12
12	Probing the non-Debye low-frequency excitations in glasses through random pinning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 8700-8704.	3.3	46
13	Nonlinear optics, optomechanics, and antibacterial coating by graphene oxide. , 2017, , .		0
14	Graphene-Oxide Gel as Biomimetic Antimicrobial Cloak. <i>Biophysical Journal</i> , 2017, 112, 589a.	0.2	0
15	Confined run-and-tumble swimmers in one dimension. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 325601.	0.7	42
16	Memory-less response and violation of the fluctuation-dissipation theorem in colloids suspended in an active bath. <i>Scientific Reports</i> , 2017, 7, 17588.	1.6	62
17	Optical supercavitation in graphene-oxide hydrogel for antimicrobial cloaks. , 2017, , .		0
18	Biomimetic antimicrobial cloak by graphene-oxide agar hydrogel. <i>Scientific Reports</i> , 2016, 6, 12.	1.6	143

#	ARTICLE	IF	CITATIONS
19	Shape and Displacement Fluctuations in Soft Vesicles Filled by Active Particles. <i>Scientific Reports</i> , 2016, 6, 34146.	1.6	69
20	Generalized model of blockage in particulate flow limited by channel carrying capacity. <i>Physical Review E</i> , 2015, 92, 032141.	0.8	6
21	Self-Sustained Density Oscillations of Swimming Bacteria Confined in Microchambers. <i>Physical Review Letters</i> , 2015, 115, 188303.	2.9	32
22	Run-and-tumble particles, telegrapher's equation and absorption problems with partially reflecting boundaries. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2015, 48, 495003.	0.7	44
23	Generalized Energy Equipartition in Harmonic Oscillators Driven by Active Baths. <i>Physical Review Letters</i> , 2014, 113, 238303.	2.9	149
24	Run-and-tumble particles in speckle fields. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 375101.	0.7	13
25	First-passage time of run-and-tumble particles. <i>European Physical Journal E</i> , 2014, 37, 15.	0.7	62
26	Averaged run-and-tumble walks. <i>Europhysics Letters</i> , 2013, 102, 20004.	0.7	26
27	Effective run-and-tumble dynamics of bacteria baths. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 415102.	0.7	14
28	Collective Predation and Escape Strategies. <i>Physical Review Letters</i> , 2012, 109, 118104.	2.9	53
29	Transport of self-propelling bacteria in micro-channel flow. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 065101.	0.7	54
30	Probability distributions for the run-and-tumble bacterial dynamics: An analogy to the Lorentz model. <i>European Physical Journal E</i> , 2012, 35, 84.	0.7	85
31	Swimming with an Image. <i>Physical Review Letters</i> , 2011, 106, 038101.	2.9	217
32	Effective Interactions between Colloidal Particles Suspended in a Bath of Swimming Cells. <i>Physical Review Letters</i> , 2011, 107, 138302.	2.9	110
33	Active ratchets. <i>Europhysics Letters</i> , 2011, 96, 68002.	0.7	97
34	Numerical modeling of bacteria propelled micromotors. <i>Computer Physics Communications</i> , 2011, 182, 1970-1973.	3.0	20
35	Bacterial ratchet motors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 9541-9545.	3.3	559
36	Geometrically biased random walks in bacteria-driven micro-shuttles. <i>New Journal of Physics</i> , 2010, 12, 113017.	1.2	73

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37	Phase Diagram and Complexity of Mode-Locked Lasers: From Order to Disorder. Physical Review Letters, 2009, 102, 083901.	2.9	61
38	Ultrashort pulse propagation and the Anderson localization. Optics Letters, 2009, 34, 130.	1.7	36
39	Self-Starting Micromotors in a Bacterial Bath. Physical Review Letters, 2009, 102, 048104.	2.9	227
40	Saddles of the energy landscape and folding of model proteins. Europhysics Letters, 2009, 87, 18002.	0.7	4
41	Energy landscape analysis of protein folding in an off-lattice model. Philosophical Magazine, 2008, 88, 3901-3905.	0.7	0
42	Short range attractive colloids: dynamics and energy landscape properties. Journal of Physics Condensed Matter, 2008, 20, 075108.	0.7	4
43	Condensation in Disordered Lasers: Theory, $\langle D^3 \rangle$ Simulations, and Experiments. Physical Review Letters, 2008, 101, 143901.	2.9	87
44	Role of saddles in topologically driven phase transitions: The case of the $d$ -dimensional spherical model. Physical Review E, 2008, 77, 052101.	0.8	5
45	Configurational entropy of hard spheres. Journal of Physics Condensed Matter, 2007, 19, 256207.	0.7	46
46	Light diffusion and localization in three-dimensional nonlinear disordered media. Physical Review A, 2007, 75, .	1.0	31
47	Phase transitions and topology in $2+kXY$ mean-field models. Physical Review E, 2007, 76, 051119.	0.8	6
48	Linear and nonlinear light diffusion in disordered photonic structures. , 2007, , .		0
49	Mode-locking transitions in nanostructured weakly disordered lasers. Physical Review B, 2007, 76, .	1.1	10
50	Complexity and coherence in Random Lasers. , 2007, , .		0
51	A glassy model for random lasers. Philosophical Magazine, 2007, 87, 587-592.	0.7	0
52	Glassy Behavior of Light. Physical Review Letters, 2006, 96, 065702.	2.9	80
53	Glassy behavior of light in random lasers. Physical Review B, 2006, 74, .	1.1	45
54	Diffusivity and configurational entropy maxima in short range attractive colloids. Journal of Physics Condensed Matter, 2005, 17, L113-L119.	0.7	18

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55	Temperature-dependent vibrational heterogeneities in harmonic glasses. <i>Europhysics Letters</i> , 2005, 71, 256-261.	0.7	15
56	Relationship between phase transitions and topological changes in one-dimensional models. <i>Physical Review E</i> , 2005, 72, 016122.	0.8	15
57	Topology and phase transitions: From an exactly solvable model to a relation between topology and thermodynamics. <i>Physical Review E</i> , 2005, 71, 036152.	0.8	31
58	Generalized fluctuation relation and effective temperatures in a driven fluid. <i>Physical Review E</i> , 2005, 71, 020101.	0.8	21
59	Topological properties of the mean-field $\phi^4$ model. <i>Physical Review E</i> , 2004, 70, 041101.	0.8	24
60	Saddles and softness in simple model liquids. <i>Journal of Chemical Physics</i> , 2004, 121, 7533-7534.	1.2	12
61	Fluctuations of Entropy Production in the Isokinetic Ensemble. <i>Journal of Statistical Physics</i> , 2004, 115, 1655-1668.	0.5	20
62	The low energy excess of vibrational states in $\nu$ -SiO <sub>2</sub> : the role of transverse dynamics. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 8519-8530.	0.7	52
63	Topological signature of first-order phase transitions in a mean-field model. <i>Europhysics Letters</i> , 2003, 62, 775-781.	0.7	71
64	Structural and dynamical consequences of density variation in vitreous silica. <i>Journal of Physics Condensed Matter</i> , 2003, 15, S995-S1005.	0.7	33
65	Saddles and dynamics in a solvable mean-field model. <i>Journal of Chemical Physics</i> , 2003, 118, 8301-8306.	1.2	7
66	General features of the energy landscape in Lennard-Jones-like model liquids. <i>Journal of Chemical Physics</i> , 2003, 119, 2120-2126.	1.2	49
67	Dynamics and geometric properties of the $k$ -trigonometric model. <i>Journal of Physics A</i> , 2003, 36, 8565-8601.	1.6	11
68	The potential energy landscape in the Lennard-Jones binary mixture model. <i>Journal of Physics Condensed Matter</i> , 2003, 15, S1227-S1236.	0.7	22
69	Reply to "Comment on "Quasisaddles as relevant points of the potential energy surface in the dynamics of supercooled liquids" [J. Chem. Phys. 118, 5263 (2002)]. <i>Journal of Chemical Physics</i> , 2003, 118, 5265-5266.	1.2	7
70	Quasisaddles as relevant points of the potential energy surface in the dynamics of supercooled liquids. <i>Journal of Chemical Physics</i> , 2002, 116, 10297-10306.	1.2	50
71	Crossover between equilibrium and shear-controlled dynamics in sheared liquids. <i>Physical Review E</i> , 2002, 66, 061505.	0.8	12
72	Off-equilibrium dynamics in the energy landscape of a simple model glass. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2002, 82, 163-169.	0.6	2

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73	A stroll in the energy landscape. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2002, 82, 151-161.	0.6	8
74	Topological Description of the Aging Dynamics in Simple Glasses. Physical Review Letters, 2001, 87, 055502.	2.9	37
75	Off-Equilibrium Effective Temperature in Monatomic Lennard-Jones Glass. Physical Review Letters, 2000, 84, 6054-6057.	2.9	87
76	Saddles in the Energy Landscape Probed by Supercooled Liquids. Physical Review Letters, 2000, 85, 5356-5359.	2.9	211
77	Potential energy landscape and long-time dynamics in a simple model glass. Physical Review E, 2000, 61, 1681-1691.	0.8	46
78	Frustration and Sound Attenuation in Structural Glasses. Physical Review Letters, 2000, 84, 4874-4877.	2.9	25
79	A model for the long time dynamics in a simple glass: Off-equilibrium properties. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1999, 79, 1987-1992.	0.6	0
80	Connected Network of Minima as a Model Glass: Long Time Dynamics. Physical Review Letters, 1998, 81, 4648-4651.	2.9	124
81	Potential energy landscape of simple structural glasses. European Physical Journal Special Topics, 1998, 08, Pr6-63-Pr6-67.	0.2	1