Luca Angelani

List of Publications by Year
in descending order

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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	Bacterial ratchet motors. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9541-9545.	3.3	559
2	Self-Starting Micromotors in a Bacterial Bath. Physical Review Letters, 2009, 102, 048104.	2.9	227
3	Swimming with an Image. Physical Review Letters, 2011, 106, 038101.	2.9	217
4	Saddles in the Energy Landscape Probed by Supercooled Liquids. Physical Review Letters, 2000, 85, 5356-5359.	2.9	211
5	Generalized Energy Equipartition in Harmonic Oscillators Driven by Active Baths. Physical Review Letters, 2014, 113, 238303.	2.9	149
6	Biomimetic antimicrobial cloak by graphene-oxide agar hydrogel. Scientific Reports, 2016, 6, 12.	1.6	143
7	Connected Network of Minima as a Model Glass: Long Time Dynamics. Physical Review Letters, 1998, 81, 4648-4651.	2.9	124
8	Effective Interactions between Colloidal Particles Suspended in a Bath of Swimming Cells. Physical Review Letters, 2011, 107, 138302.	2.9	110
9	Active ratchets. Europhysics Letters, 2011, 96, 68002.	0.7	97
10	Off-Equilibrium Effective Temperature in Monatomic Lennard-Jones Glass. Physical Review Letters, 2000, 84, 6054-6057.	2.9	87
11	Condensation in Disordered Lasers: Theory,<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>3</mml:mn><mml:mi mathvariant="normal">D</mml:mi><mml:mo>+</mml:mo><mml:mn>1</mml:mn></mml:math>Simulations, and Experiments. Physical Review Letters, 2008, 101, 143901.	2.9	87
12	Probability distributions for the run-and-tumble bacterial dynamics: An analogy to the Lorentz model. European Physical Journal E, 2012, 35, 84.	0.7	85
13	Glassy Behavior of Light. Physical Review Letters, 2006, 96, 065702.	2.9	80
14	Geometrically biased random walks in bacteria-driven micro-shuttles. New Journal of Physics, 2010, 12, 113017.	1.2	73
15	Topological signature of first-order phase transitions in a mean-field model. Europhysics Letters, 2003, 62, 775-781.	0.7	71
16	Shape and Displacement Fluctuations in Soft Vesicles Filled by Active Particles. Scientific Reports, 2016, 6, 34146.	1.6	69
17	First-passage time of run-and-tumble particles. European Physical Journal E, 2014, 37, 15.	0.7	62
18	Memory-less response and violation of the fluctuation-dissipation theorem in colloids suspended in an active bath. Scientific Reports, 2017, 7, 17588.	1.6	62

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19	Phase Diagram and Complexity of Mode-Locked Lasers: From Order to Disorder. Physical Review Letters, 2009, 102, 083901.	2.9	61
20	Transport of self-propelling bacteria in micro-channel flow. Journal of Physics Condensed Matter, 2012, 24, 065101.	0.7	54
21	Collective Predation and Escape Strategies. Physical Review Letters, 2012, 109, 118104.	2.9	53
22	The low energy excess of vibrational states in v-SiO2: the role of transverse dynamics. Journal of Physics Condensed Matter, 2004, 16, 8519-8530.	0.7	52
23	Quasisaddles as relevant points of the potential energy surface in the dynamics of supercooled liquids. Journal of Chemical Physics, 2002, 116, 10297-10306.	1.2	50
24	General features of the energy landscape in Lennard-Jones-like model liquids. Journal of Chemical Physics, 2003, 119, 2120-2126.	1.2	49
25	Potential energy landscape and long-time dynamics in a simple model glass. Physical Review E, 2000, 61, 1681-1691.	0.8	46
26	Configurational entropy of hard spheres. Journal of Physics Condensed Matter, 2007, 19, 256207.	0.7	46
27	Probing the non-Debye low-frequency excitations in glasses through random pinning. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8700-8704.	3.3	46
28	Glassy behavior of light in random lasers. Physical Review B, 2006, 74, .	1.1	45
29	Run-and-tumble particles, telegrapherâ€™s equation and absorption problems with partially reflecting boundaries. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 495003.	0.7	44
30	Confined run-and-tumble swimmers in one dimension. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 325601.	0.7	42
31	Topological Description of the Aging Dynamics in Simple Glasses. Physical Review Letters, 2001, 87, 055502.	2.9	37
32	Ultrashort pulse propagation and the Anderson localization. Optics Letters, 2009, 34, 130.	1.7	36
33	Structural and dynamical consequences of density variation in vitreous silica. Journal of Physics Condensed Matter, 2003, 15, S995-S1005.	0.7	33
34	Self-Sustained Density Oscillations of Swimming Bacteria Confined in Microchambers. Physical Review Letters, 2015, 115, 188303.	2.9	32
35	Topology and phase transitions: From an exactly solvable model to a relation between topology and thermodynamics. Physical Review E, 2005, 71, 036152.	0.8	31
36	Light diffusion and localization in three-dimensional nonlinear disordered media. Physical Review A, 2007, 75, .	1.0	31

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37	Averaged run-and-tumble walks. Europhysics Letters, 2013, 102, 20004.	0.7	26
38	Frustration and Sound Attenuation in Structural Glasses. Physical Review Letters, 2000, 84, 4874-4877.	2.9	25
39	Topological properties of the mean-fieldÏ•4model. Physical Review E, 2004, 70, 041101.	0.8	24
40	The potential energy landscape in the Lennard-Jones binary mixture model. Journal of Physics Condensed Matter, 2003, 15, S1227-S1236.	0.7	22
41	Generalized fluctuation relation and effective temperatures in a driven fluid. Physical Review E, 2005, 71, 020101.	0.8	21
42	Fluctuations of Entropy Production in the Isokinetic Ensemble. Journal of Statistical Physics, 2004, 115, 1655-1668.	0.5	20
43	Numerical modeling of bacteria propelled micromotors. Computer Physics Communications, 2011, 182, 1970-1973.	3.0	20
44	Diffusivity and configurational entropy maxima in short range attractive colloids. Journal of Physics Condensed Matter, 2005, 17, L113-L119.	0.7	18
45	Temperature-dependent vibrational heterogeneities in harmonic glasses. Europhysics Letters, 2005, 71, 256-261.	0.7	15
46	Relationship between phase transitions and topological changes in one-dimensional models. Physical Review E, 2005, 72, 016122.	0.8	15
47	Narrow-escape time and sorting of active particles in circular domains. Physical Review E, 2020, 102, 042617.	0.8	15
48	Effective run-and-tumble dynamics of bacteria baths. Journal of Physics Condensed Matter, 2013, 25, 415102.	0.7	14
49	Run-and-tumble particles in speckle fields. Journal of Physics Condensed Matter, 2014, 26, 375101.	0.7	13
50	Crossover between equilibrium and shear-controlled dynamics in sheared liquids. Physical Review E, 2002, 66, 061505.	0.8	12
51	Saddles and softness in simple model liquids. Journal of Chemical Physics, 2004, 121, 7533-7534.	1.2	12
52	Currents and flux-inversion in photokinetic active particles. Soft Matter, 2018, 14, 4958-4962.	1.2	12
53	Run-and-tumble motion in one dimension with space-dependent speed. Physical Review E, 2019, 100, 052147.	0.8	12
54	Dynamics and geometric properties of thek-trigonometric model. Journal of Physics A, 2003, 36, 8565-8601.	1.6	11

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55	Relation between Heterogeneous Frozen Regions in Supercooled Liquids and Non-Debye Spectrum in the Corresponding Glasses. Physical Review Letters, 2019, 123, 155502.	2.9	11
56	Mode-locking transitions in nanostructured weakly disordered lasers. Physical Review B, 2007, 76, .	1.1	10
57	Spontaneous assembly of colloidal vesicles driven by active swimmers. Journal of Physics Condensed Matter, 2019, 31, 075101.	0.7	9
58	On fractional Cattaneo equation with partially reflecting boundaries. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 085204.	0.7	9
59	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
60	Probability distributions for the run-and-tumble models with variable speed and tumbling rate. Modern Stochastics: Theory and Applications, 2019, , 3-12.	0.2	8
61	Saddles and dynamics in a solvable mean-field model. Journal of Chemical Physics, 2003, 118, 8301-8306.	1.2	7
62	Reply to â€œComment on â€˜Quasisaddles as relevant points of the potential energy surface in the dynamics of supercooled liquidsâ€™â€Šâ€•[J. Chem. Phys. 118, 5263 (2002)]. Journal of Chemical Physics, 2003, 118, 5265-5266.	1.2	7
63	Alignment interactions drive structural transitions in biological tissues. Physical Review E, 2021, 104, 044606.	0.8	7
64	Phase transitions and topology in2+kXYmean-field models. Physical Review E, 2007, 76, 051119.	0.8	6
65	Generalized model of blockage in particulate flow limited by channel carrying capacity. Physical Review E, 2015, 92, 032141.	0.8	6
66	Role of saddles in topologically driven phase transitions: The case of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>d</mml:mi></mml:math>-dimensional spherical model. Physical Review E, 2008, 77, 052101.	0.8	5
67	Probing the Debye spectrum in glasses using small system sizes. Physical Review Research, 2020, 2, .	1.3	5
68	Short range attractive colloids: dynamics and energy landscape properties. Journal of Physics Condensed Matter, 2008, 20, 075108.	0.7	4
69	Saddles of the energy landscape and folding of model proteins. Europhysics Letters, 2009, 87, 18002.	0.7	4
70	Off-equilibrium dynamics in the energy landscape of a simple model glass. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2002, 82, 163-169.	0.6	2
71	Lattice model for active flows in microchannels. Physical Review E, 2020, 102, 062602.	0.8	1
72	Potential energy landscape of simple structural glasses. European Physical Journal Special Topics, 1998, 08, Pr6-63-Pr6-67.	0.2	1

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73	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
74	Linear and nonlinear light diffusion in disordered photonic structures. , 2007, , .		0
75	Complexity and coherence in Random Lasers. , 2007, , .		0
76	A glassy model for random lasers. Philosophical Magazine, 2007, 87, 587-592.	0.7	0
77	Energy landscape analysis of protein folding in an off-lattice model. Philosophical Magazine, 2008, 88, 3901-3905.	0.7	0
78	Nonlinear optics, optomechanics, and antibacterial coating by graphene oxide. , 2017, , .		0
79	Graphene-Oxide Gel as Biomimetic Antimicrobial Cloak. Biophysical Journal, 2017, 112, 589a.	0.2	0
80	Optical supercavitation in graphene-oxide hydrogel for antimicrobial cloaks. , 2017, , .		0
81	Low-frequency excitations and their localization properties in glasses. Condensed Matter Physics, 2019, 22, 43608.	0.3	0