

Michael A Lomholt

List of Publications by Year in descending order

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45
papers

1,855
citations

304743

22
h-index

254184

43
g-index

46
all docs

46
docs citations

46
times ranked

1302
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimal Target Search on a Fast-Folding Polymer Chain with Volume Exchange. <i>Physical Review Letters</i> , 2005, 95, 260603.	7.8	207
2	Facilitated diffusion with DNA coiling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 8204-8208.	7.1	176
3	Foundation of fractional Langevin equation: Harmonization of a many-body problem. <i>Physical Review E</i> , 2010, 81, 051118.	2.1	120
4	Leapover Lengths and First Passage Time Statistics for Lévy Flights. <i>Physical Review Letters</i> , 2007, 99, 160602.	7.8	113
5	Subdiffusion and Weak Ergodicity Breaking in the Presence of a Reactive Boundary. <i>Physical Review Letters</i> , 2007, 98, 200603.	7.8	111
6	Objective comparison of methods to decode anomalous diffusion. <i>Nature Communications</i> , 2021, 12, 6253.	12.8	109
7	Bayesian analysis of single-particle tracking data using the nested-sampling algorithm: maximum-likelihood model selection applied to stochastic-diffusivity data. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 29018-29037.	2.8	99
8	Langevin formulation for single-file diffusion. <i>Physical Review E</i> , 2008, 78, 051116.	2.1	59
9	First passage and first hitting times of Lévy flights and Lévy walks. <i>New Journal of Physics</i> , 2019, 21, 103028.	2.9	54
10	Bulk-mediated diffusion on a planar surface: Full solution. <i>Physical Review E</i> , 2012, 86, 041101.	2.1	50
11	How Subdiffusion Changes the Kinetics of Binding to a Surface. <i>Biophysical Journal</i> , 2009, 97, 710-721.	0.5	48
12	Microscopic Origin of the Logarithmic Time Evolution of Aging Processes in Complex Systems. <i>Physical Review Letters</i> , 2013, 110, 208301.	7.8	48
13	Quantitative fluorescence loss in photobleaching for analysis of protein transport and aggregation. <i>BMC Bioinformatics</i> , 2012, 13, 296.	2.6	46
14	Real sequence effects on the search dynamics of transcription factors on DNA. <i>Scientific Reports</i> , 2015, 5, 10072.	3.3	46
15	Severe slowing-down and universality of the dynamics in disordered interacting many-body systems: ageing and ultraslow diffusion. <i>New Journal of Physics</i> , 2014, 16, 113050.	2.9	44
16	Directed motion emerging from two coupled random processes: translocation of a chain through a membrane nanopore driven by binding proteins. <i>Journal of Physics Condensed Matter</i> , 2005, 17, S3945-S3964.	1.8	43
17	Bulk-mediated surface diffusion along a cylinder: Propagators and crossovers. <i>Physical Review E</i> , 2009, 79, 040105.	2.1	43
18	Applying a potential across a biomembrane: Electrostatic contribution to the bending rigidity and membrane instability. <i>Physical Review E</i> , 2007, 75, 051916.	2.1	33

#	ARTICLE	IF	CITATIONS
19	Effective tension and fluctuations in active membranes. <i>Physical Review E</i> , 2012, 85, 031913.	2.1	30
20	Single-file dynamics with different diffusion constants. <i>Journal of Chemical Physics</i> , 2008, 129, 185106.	3.0	26
21	Effective surface motion on a reactive cylinder of particles that perform intermittent bulk diffusion. <i>Journal of Chemical Physics</i> , 2011, 134, 204116.	3.0	24
22	Quantifying the Relationship between Curvature and Electric Potential in Lipid Bilayers. <i>Journal of Physical Chemistry B</i> , 2016, 120, 4812-4817.	2.6	24
23	Descriptions of membrane mechanics from microscopic and effective two-dimensional perspectives. <i>Journal of Physics A</i> , 2006, 39, 10323-10354.	1.6	23
24	Imaging approaches for analysis of cholesterol distribution and dynamics in the plasma membrane. <i>Chemistry and Physics of Lipids</i> , 2016, 199, 106-135.	3.2	22
25	Manipulating Single Enzymes by an External Harmonic Force. <i>Physical Review Letters</i> , 2007, 98, 168302.	7.8	20
26	Fluctuation spectrum of quasispherical membranes with force-dipole activity. <i>Physical Review E</i> , 2006, 73, 061914.	2.1	19
27	Master equation approach to DNA breathing in heteropolymer DNA. <i>Physical Review E</i> , 2007, 75, 021908.	2.1	19
28	And did he search for you, and could not find you?. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009, 42, 434005.	2.1	19
29	Bayesian model selection with fractional Brownian motion. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2018, 2018, 093501.	2.3	19
30	Bayesian inference with information content model check for Langevin equations. <i>Physical Review E</i> , 2017, 96, 062106.	2.1	18
31	Mechanics of nonplanar membranes with force-dipole activity. <i>Physical Review E</i> , 2006, 73, 061913.	2.1	16
32	Two-photon time-lapse microscopy of BODIPY-cholesterol reveals anomalous sterol diffusion in chinese hamster ovary cells. <i>BMC Biophysics</i> , 2012, 5, 20.	4.4	16
33	Bayesian inference of scaled versus fractional Brownian motion. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2022, 55, 194003.	2.1	15
34	Single-file diffusion with non-thermal initial conditions. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 395, 148-153.	2.6	13
35	Electromechanics of a membrane with spatially distributed fixed charges: Flexoelectricity and elastic parameters. <i>Physical Review E</i> , 2013, 88, 062715.	2.1	12
36	Bayesian inference of Lévy walks via hidden Markov models. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2021, 54, 484001.	2.1	12

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37	Dissimilar bouncy walkers. <i>Journal of Chemical Physics</i> , 2011, 134, 045101.	3.0	10
38	Elastic moderation of intrinsically applied tension in lipid membranes. <i>Physical Review E</i> , 2011, 83, 011913.	2.1	9
39	Stochastic unfolding of nanoconfined DNA: Experiments, model and Bayesian analysis. <i>Journal of Chemical Physics</i> , 2018, 149, 215101.	3.0	9
40	Fitting a function to time-dependent ensemble averaged data. <i>Scientific Reports</i> , 2018, 8, 6984.	3.3	9
41	Tension moderation and fluctuation spectrum in simulated lipid membranes under an applied electric potential. <i>Journal of Chemical Physics</i> , 2013, 139, 164902.	3.0	7
42	Universality and nonuniversality of mobility in heterogeneous single-file systems and Rouse chains. <i>Physical Review E</i> , 2014, 89, 032101.	2.1	6
43	Stochastic thermodynamics of a tagged particle within a harmonic chain. <i>Physical Review E</i> , 2015, 91, 022114.	2.1	5
44	Optimization and modeling of the remote loading of luciferin into liposomes. <i>International Journal of Pharmaceutics</i> , 2016, 508, 128-134.	5.2	3
45	Tracer particles in two-dimensional elastic networks diffuse logarithmically slow. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 034001.	2.1	1