Andrea Parmeggiani

List of Publications by Year
in descending order

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41 papers	1,869 citations	430874 18 h-index	302126 39 g-index
46 all docs	46 docs citations	46 times ranked	1079 citing authors

#	Article	IF	Citations
1	Phase Coexistence in Driven One-Dimensional Transport. Physical Review Letters, 2003, 90, 086601.	7.8	408
2	Energy transduction of isothermal ratchets: Generic aspects and specific examples close to and far from equilibrium. Physical Review E, 1999, 60, 2127-2140.	2.1	235
3	Totally asymmetric simple exclusion process with Langmuir kinetics. Physical Review E, 2004, 70, 046101.	2.1	218
4	Stochastic Self-Assembly of ParB Proteins Builds the Bacterial DNA Segregation Apparatus. Cell Systems, 2015, 1, 163-173.	6.2	118
5	ATP-Driven Separation of Liquid Phase Condensates in Bacteria. Molecular Cell, 2020, 79, 293-303.e4.	9.7	107
6	Totally Asymmetric Simple Exclusion Process on Networks. Physical Review Letters, 2011, 107, 068702.	7.8	84
7	Variable Combinations of Specific Ephrin Ligand/Eph Receptor Pairs Control Embryonic Tissue Separation. PLoS Biology, 2014, 12, e1001955.	5.6	67
8	Modeling Cytoskeletal Traffic: An Interplay between Passive Diffusion and Active Transport. Physical Review Letters, 2013, 110, 098102.	7.8	63
9	Exclusion processes on networks as models for cytoskeletal transport. New Journal of Physics, 2013, 15, 085005.	2.9	58
10	Understanding totally asymmetric simple-exclusion-process transport on networks: Generic analysis via effective rates and explicit vertices. Physical Review E, 2009, 80, 041128.	2.1	53
11	A conserved mechanism drives partition complex assembly on bacterial chromosomes and plasmids. Molecular Systems Biology, 2018, 14, e8516.	7.2	53
12	Dynamic correlation functions and Boltzmann-Langevin approach for driven one-dimensional lattice gas. Physical Review E, 2005, 72, 036123.	2.1	38
13	Internal Motility in Stiffening Actin-Myosin Networks. Physical Review Letters, 2004, 93, 268101.	7.8	37
14	Detachment of molecular motors under tangential loading. Europhysics Letters, 2001, 56, 603-609.	2.0	34
15	Surfing on Protein Waves: Proteophoresis as a Mechanism for Bacterial Genome Partitioning. Physical Review Letters, 2017, 119, 028101.	7.8	34
16	Motor protein traffic regulation by supplyâ€“demand balance of resources. Physical Biology, 2014, 11, 056006.	1.8	26
17	Form-finding of complex tensegrity structures: application to cell cytoskeleton modelling. Comptes Rendus - Mecanique, 2006, 334, 662-668.	2.1	25
18	Transport on a lattice with dynamical defects. Physical Review E, 2013, 87, 012705.	2.1	25

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19	Physical Modeling of a Sliding Clamp Mechanism for the Spreading of ParB at Short Genomic Distance from Bacterial Centromere Sites. IScience, 2020, 23, 101861.	4.1	22
20	Role of network junctions for the totally asymmetric simple exclusion process. Physical Review E, 2013, 88, 042104.	2.1	18
21	Stepping and Crowding of Molecular Motors: Statistical Kinetics from an Exclusion Process Perspective. Biophysical Journal, 2014, 107, 1176-1184.	0.5	18
22	Collective phenomena in intracellular processes. Genome Informatics, 2004, 15, 46-55.	0.4	17
23	HEX-TASEP: dynamics of pinned domains for TASEP transport on a periodic lattice of hexagonal topology. Journal of Physics Condensed Matter, 2008, 20, 295213.	1.8	12
24	Long-Range Protein Coupling Mediated by Critical Low-Energy Modes of Tubular Lipid Membranes. Physical Review Letters, 2010, 105, 028102.	7.8	12
25	Macrophage morphological plasticity and migration is Rac signalling and MMP9 dependant. Scientific Reports, 2021, 11, 10123.	3.3	10
26	Renewal processes and fluctuation analysis of molecular motor stepping. Physical Biology, 2005, 2, 207-222.	1.8	9
27	Looping and clustering model for the organization of protein-DNA complexes on the bacterial genome. New Journal of Physics, 2018, 20, 035002.	2.9	9
28	Mechanical instabilities of aorta drive blood stem cell production: a live study. Cellular and Molecular Life Sciences, 2020, 77, 3453-3464.	5.4	9
29	Centrosomal targeting of Syk kinase is controlled by its catalytic activity and depends on microtubules and the dynein motor. FASEB Journal, 2013, 27, 109-122.	0.5	7
30	Stochastic modelling of collective motor protein transport through a crossing of microtubules. Journal of Theoretical Biology, 2020, 505, 110370.	1.7	6
31	Taming Nonequilibrium Statistics. Physics Magazine, 2012, 5, .	0.1	5
32	Foci of cyclin A2 interact with actin and RhoA in mitosis. Scientific Reports, 2016, 6, 27215.	3.3	5
33	Supercoiled DNA and non-equilibrium formation of protein complexes: A quantitative model of the nucleoprotein ParBS partition complex. PLoS Computational Biology, 2021, 17, e1008869.	3.2	4
34	Modelling the effect of ribosome mobility on the rate of protein synthesis. European Physical Journal E, 2021, 44, 19.	1.6	3
35	Modeling and live imaging of mechanical instabilities in the zebrafish aorta during hematopoiesis. Scientific Reports, 2021, 11, 9316.	3.3	3
36	Non-Equilibrium Collective Transport on Molecular Highways. , 2009, , 667-677.		3

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37	Micromechanics of Molecular Motors: Experiments and Theory. , 2004, , 151-176.		2
38	Low-frequency phonon dynamics and related thermal properties of axially stressed single-walled carbon nanotubes. Journal of Physics Condensed Matter, 2019, 31, 425302.	1.8	2
39	Phase separation of polymer-bound particles induced by loop-mediated one dimensional effective long-range interactions. Physical Review Research, 2020, 2, .	3.6	2
40	Relaxation time asymmetry in stator dynamics of the bacterial flagellar motor. Science Advances, 2022, 8, eabl8112.	10.3	2
41	Modelling Collective Cytoskeletal Transport andÂIntracellular Traffic. Mathematics for Industry, 2014, , 1-25.	0.4	0