

# Fabio Cecconi

## List of Publications by Year in descending order

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85  
papers

3,606  
citations

279487

23  
h-index

133063

59  
g-index

87  
all docs

87  
docs citations

87  
times ranked

3286  
citing authors

#	ARTICLE	IF	CITATIONS
1	Defining and identifying communities in networks. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 2658-2663.	3.3	2,029
2	Functional Dynamics of PDZ Binding Domains: A Normal-Mode Analysis. Biophysical Journal, 2005, 89, 14-21.	0.2	124
3	Sedimentation speed of inertial particles in laminar and turbulent flows. Europhysics Letters, 2008, 84, 40005.	0.7	86
4	Topological thermal instability and length of proteins. Proteins: Structure, Function and Bioinformatics, 2004, 55, 529-535.	1.5	56
5	Protein sequencing via nanopore based devices: a nanofluidics perspective. Journal of Physics Condensed Matter, 2018, 30, 204002.	0.7	55
6	Nonlinear Response of Inertial Tracers in Steady Laminar Flows: Differential and Absolute Negative Mobility. Physical Review Letters, 2016, 117, 174501.	2.9	51
7	Analytical Model for Particle Capture in Nanopores Elucidates Competition among Electrophoresis, Electroosmosis, and Dielectrophoresis. ACS Nano, 2020, 14, 15816-15828.	7.3	46
8	A Statistical Model for Translocation of Structured Polypeptide Chains through Nanopores. Journal of Physical Chemistry B, 2009, 113, 10348-10356.	1.2	44
9	Predicting the future from the past: An old problem from a modern perspective. American Journal of Physics, 2012, 80, 1001-1008.	0.3	43
10	Electroosmotic flow through an $\alpha$ -hemolysin nanopore. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	43
11	Fluid-like behavior of a one-dimensional granular gas. Journal of Chemical Physics, 2004, 120, 35-42.	1.2	38
12	Molecular dynamics studies on HIV-1 protease: Drug resistance and folding pathways. Proteins: Structure, Function and Bioinformatics, 2001, 43, 365-372.	1.5	35
13	Brownian motion and diffusion: From stochastic processes to chaos and beyond. Chaos, 2005, 15, 026102.	1.0	33
14	Multistep Current Signal in Protein Translocation through Graphene Nanopores. Journal of Physical Chemistry B, 2015, 119, 5815-5823.	1.2	33
15	The origin of diffusion: the case of non-chaotic systems. Physica D: Nonlinear Phenomena, 2003, 180, 129-139.	1.3	29
16	Noise Activated Granular Dynamics. Physical Review Letters, 2003, 90, 064301.	2.9	28
17	Synchronization of non-chaotic dynamical systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 282, 9-17.	0.9	27
18	Minimal Stochastic Model for Fermi's Acceleration. Physical Review Letters, 2004, 92, 040601.	2.9	27

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19	Theory of thermostatted inhomogeneous granular fluids: A self-consistent density functional description. <i>Journal of Chemical Physics</i> , 2007, 126, 164904.	1.2	27
20	Nanopore tweezers: Voltage-controlled trapping and releasing of analytes. <i>Physical Review E</i> , 2015, 92, 032714.	0.8	27
21	Role of Denaturation in Maltose Binding Protein Translocation Dynamics. <i>Journal of Physical Chemistry B</i> , 2012, 116, 4255-4262.	1.2	25
22	Fuzzy transition region in a one-dimensional coupled-stable-map lattice. <i>Physical Review E</i> , 1998, 57, 2703-2712.	0.8	23
23	Diffusion, Peer Pressure, and Tailed Distributions. <i>Physical Review Letters</i> , 2002, 89, 088102.	2.9	22
24	Short-period attractors and non-ergodic behavior in the deterministic fixed-energy sandpile model. <i>Europhysics Letters</i> , 2003, 63, 512-518.	0.7	21
25	Testing Simplified Proteins Models of the hPin1 WW Domain. <i>Biophysical Journal</i> , 2006, 91, 694-704.	0.2	21
26	Transport of active particles in an open-wedge channel. <i>Journal of Chemical Physics</i> , 2019, 150, 144903.	1.2	20
27	Inelastic hard rods in a periodic potential. <i>Journal of Chemical Physics</i> , 2004, 121, 5125-5132.	1.2	19
28	Computational analysis of maltose binding protein translocation. <i>Philosophical Magazine</i> , 2011, 91, 2034-2048.	0.7	18
29	Protein translocation in narrow pores: Inferring bottlenecks from native structure topology. <i>Physical Review E</i> , 2013, 88, 022712.	0.8	18
30	Transport properties of chaotic and non-chaotic many particle systems. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2007, 2007, P12001-P12001.	0.9	17
31	Beyond dynamic density functional theory: the role of inertia. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 494233.	0.7	17
32	Translocation intermediates of ubiquitin through an $\hat{\pm}$ -hemolysin nanopore: implications for detection of post-translational modifications. <i>Nanoscale</i> , 2019, 11, 9920-9930.	2.8	17
33	Crucial stages of protein folding through a solvable model: Predicting target sites for enzyme-inhibiting drugs. <i>Protein Science</i> , 2002, 11, 1878-1887.	3.1	16
34	Anomalous diffusion and response in branched systems: a simple analysis. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 465106.	0.7	16
35	The role of the number of degrees of freedom and chaos in macroscopic irreversibility. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016, 442, 486-497.	1.2	16
36	Activity-controlled clogging and unclogging of microchannels. <i>Physical Review Research</i> , 2020, 2, .	1.3	16

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37	Understanding causation via correlations and linear response theory. <i>Physical Review Research</i> , 2020, 2, .	1.3	16
38	The Role of Data in Model Building and Prediction: A Survey Through Examples. <i>Entropy</i> , 2018, 20, 807.	1.1	15
39	Correlated escape of active particles across a potential barrier. <i>Journal of Chemical Physics</i> , 2021, 155, 234902.	1.2	15
40	Anomalous force-velocity relation of driven inertial tracers in steady laminar flows. <i>European Physical Journal E</i> , 2017, 40, 81.	0.7	14
41	DCA for genome-wide epistasis analysis: the statistical genetics perspective. <i>Physical Biology</i> , 2019, 16, 026002.	0.8	14
42	Coarse Grained Modeling and Approaches to Protein Folding. <i>Current Bioinformatics</i> , 2010, 5, 217-240.	0.7	13
43	Coarse-grained modeling of protein unspecifically bound to DNA. <i>Physical Biology</i> , 2014, 11, 026003.	0.8	13
44	Non-anomalous diffusion is not always Gaussian. <i>European Physical Journal B</i> , 2014, 87, 1.	0.6	13
45	Driven diffusion against electrostatic or effective energy barrier across $\alpha$ -hemolysin. <i>Journal of Chemical Physics</i> , 2015, 143, 154109.	1.2	12
46	Protein Transport Across Nanopores: A Statistical Mechanical Perspective From Coarse-Grained Modeling and Approaches. <i>Protein and Peptide Letters</i> , 2014, 21, 227-234.	0.4	12
47	Molecular dynamics studies on HIV-1 protease drug resistance and folding pathways. <i>Proteins: Structure, Function and Bioinformatics</i> , 2001, 43, 365-72.	1.5	12
48	Exploring the Unfolding Pathway of Maltose Binding Proteins: An Integrated Computational Approach. <i>Journal of Chemical Theory and Computation</i> , 2014, 10, 3589-3597.	2.3	11
49	Diffusion properties of self-propelled particles in cellular flows. <i>Soft Matter</i> , 2020, 16, 5431-5438.	1.2	11
50	An analytic estimate of the maximum Lyapunov exponent in products of tridiagonal random matrices. <i>Journal of Physics A</i> , 1999, 32, 7603-7621.	1.6	9
51	Models of fluidized granular materials: examples of non-equilibrium stationary states. <i>Journal of Physics Condensed Matter</i> , 2005, 17, S2715-S2730.	0.7	9
52	Anomalous mobility of a driven active particle in a steady laminar flow. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 264002.	0.7	9
53	How a local active force modifies the structural properties of polymers. <i>Soft Matter</i> , 2020, 16, 2594-2604.	1.2	9
54	Probability distribution functions of sub- and superdiffusive systems. <i>Physical Review Research</i> , 2022, 4, .	1.3	9

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55	Stability and Kinetic Properties of C5-Domain from Myosin Binding Protein C and its Mutants. Biophysical Journal, 2008, 94, 1403-1411.	0.2	8
56	Modulation of current through a nanopore induced by a charged globule: Implications for DNA-docking. Europhysics Letters, 2014, 108, 46002.	0.7	8
57	Frequency-control of protein translocation across an oscillating nanopore. Physical Chemistry Chemical Physics, 2017, 19, 11260-11272.	1.3	8
58	Computational methods and theory for ion channel research. Advances in Physics: X, 2022, 7, .	1.5	8
59	Mean-field approach for a statistical mechanical model of proteins. Journal of Chemical Physics, 2003, 119, 1248-1256.	1.2	7
60	Kinetics of self-induced aggregation in Brownian particles. Physical Review E, 2007, 75, 031111.	0.8	7
61	Temperature Dependence of Normal Mode Reconstructions of Protein Dynamics. Physical Review Letters, 2009, 102, 218104.	2.9	7
62	Transport and fluctuation-dissipation relations in asymptotic and preasymptotic diffusion across channels with variable section. Physical Review E, 2014, 90, 062110.	0.8	7
63	Understanding the dependence on the pulling speed of the unfolding pathway of proteins. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P08003.	0.9	7
64	Analysis of PIN1 WW domain through a simple statistical mechanics model. Biophysical Chemistry, 2005, 115, 153-158.	1.5	6
65	Approximation of chaotic systems in terms of Markovian processes. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 201, 326-332.	0.9	5
66	n-tree approximation for the largest Lyapunov exponent of a coupled-map lattice. Physical Review E, 1997, 56, 4998-5003.	0.8	5
67	Scaling behavior in a nonlocal and nonlinear diffusion equation. Physical Review E, 2000, 62, R5879-R5882.	0.8	5
68	Diffusion-Limited Unbinding of Small Peptides from PDZ Domains. Journal of Physical Chemistry B, 2007, 111, 11057-11063.	1.2	5
69	Computational analysis of folding and mutation properties of C5 domain of myosin binding protein C. Proteins: Structure, Function and Bioinformatics, 2008, 70, 1313-1322.	1.5	5
70	Analyzing pathogenic mutations of C5 domain from cardiac myosin binding protein C through MD simulations. European Biophysics Journal, 2008, 37, 683-691.	1.2	5
71	Diffusion, super-diffusion and coalescence from a single step. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P10007-P10007.	0.9	4
72	Effective equations for reaction coordinates in polymer transport. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 013208.	0.9	4

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73	Diffusive transport in highly corrugated channels. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019, 383, 1084-1091.	0.9	3
74	Inelastic Takahashi hard-rod gas. <i>Journal of Chemical Physics</i> , 2006, 124, 044507.	1.2	2
75	Transport of a heated granular gas in a washboard potential. <i>Journal of Chemical Physics</i> , 2006, 125, 204711.	1.2	2
76	Native-state fingerprint on the ubiquitin translocation across a nanopore. <i>Physical Review E</i> , 2020, 101, 032401.	0.8	2
77	Sporadicity and synchronization in one-dimensional asymmetrically coupled maps. <i>Journal of Physics A</i> , 1995, 28, 4727-4732.	1.6	1
78	Clustering and coalescence from multiplicative noise: the Kraichnan ensemble. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2008, 41, 235003.	0.7	1
79	Translocation process of structured polypeptides across nanopores. <i>Spectroscopy</i> , 2010, 24, 421-426.	0.8	1
80	Role of Chaos for the Validity of Statistical Mechanics Laws: Diffusion and Conduction. , 2007, , 123-149.		1
81	Computational characterization of the mutation impact on domain C5 of Myosin Binding Protein C. , 2007, , .		0
82	Thermally induced directed currents in hard rod systems. <i>Granular Matter</i> , 2012, 14, 111-114.	1.1	0
83	From the Law of Large Numbers to Large Deviation Theory in Statistical Physics: An Introduction. <i>Lecture Notes in Physics</i> , 2014, , 1-27.	0.3	0
84	Reaction Spreading in Systems With Anomalous Diffusion. <i>Mathematical Modelling of Natural Phenomena</i> , 2016, 11, 107-127.	0.9	0
85	Simple Models for Compartmentalized Sand. , 2005, , 579-584.		0