Stefano Mossa

List of Publications by Year
in descending order

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60 papers	4,566 citations	159585 30 h-index	123424 61 g-index
62 all docs	62 docs citations	62 times ranked	4654 citing authors

#	Article	IF	Citations
1	The worldwide air transportation network: Anomalous centrality, community structure, and cities' global roles. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 7794-7799.	7.1	1,377
2	Equilibrium Cluster Phases and Low-Density Arrested Disordered States: The Role of Short-Range Attraction and Long-Range Repulsion. Physical Review Letters, 2004, 93, 055701.	7.8	434
3	Interplay between Time-Temperature Transformation and the Liquid-Liquid Phase Transition in Water. Physical Review Letters, 2002, 88, 195701.	7.8	225
4	Ground-State Clusters for Short-Range Attractive and Long-Range Repulsive Potentials. Langmuir, 2004, 20, 10756-10763.	3.5	187
5	Truncation of Power Law Behavior in â€œScale-Freeâ€•Network Models due to Information Filtering. Physical Review Letters, 2002, 88, 138701.	7.8	172
6	Effective temperature of active matter. Physical Review E, 2008, 77, 051111.	2.1	163
7	Anomalous properties of the acoustic excitations in glasses on the mesoscopic length scale. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16907-16912.	7.1	124
8	Potential energy, relaxation, vibrational dynamics and the boson peak, of hyperquenched glasses. Journal of Physics Condensed Matter, 2003, 15, S1051-S1068.	1.8	123
9	Disentangling density and temperature effects in the viscous slowing down of glassforming liquids. Journal of Chemical Physics, 2004, 120, 6135-6141.	3.0	113
10	Li⁺ Solvation in Pure, Binary, and Ternary Mixtures of Organic Carbonate Electrolytes. Journal of Physical Chemistry C, 2015, 119, 4502-4515.	3.1	110
11	Measuring spatial distribution of the local elastic modulus in glasses. Physical Review E, 2013, 87, 042306.	2.1	104
12	Dynamics and configurational entropy in the Lewis-WahnstrÃ¶m model for supercooled orthoterphenyl. Physical Review E, 2002, 65, 041205.	2.1	98
13	Non-conservative forces and effective temperatures in active polymers. Soft Matter, 2011, 7, 10193.	2.7	80
14	Effective temperature of active complex matter. Soft Matter, 2011, 7, 3726.	2.7	79
15	Crossover (or Kovacs) Effect in an Aging Molecular Liquid. Physical Review Letters, 2004, 92, 045504.	7.8	78
16	Potential Energy Landscape Equation of State. Physical Review Letters, 2002, 88, 225701.	7.8	70
17	Acoustic excitations and elastic heterogeneities in disordered solids. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11949-11954.	7.1	67
18	Molecular dynamics simulation of the fragile glass-former orthoterphenyl: A flexible molecule model. Physical Review E, 2000, 62, 612-630.	2.1	60

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19	Elastic heterogeneity, vibrational states, and thermal conductivity across an amorphisation transition. Europhysics Letters, 2013, 104, 56001.	2.0	58
20	Beating the amorphous limit in thermal conductivity by superlattices design. Scientific Reports, 2015, 5, 14116.	3.3	54
21	Water sub-diffusion in membranes for fuel cells. Scientific Reports, 2017, 7, 8326.	3.3	54
22	Routes to colloidal gel formation. Computer Physics Communications, 2005, 169, 166-171.	7.5	52
23	Morphology of Supported Polymer Electrolyte Ultrathin Films: A Numerical Study. Journal of Physical Chemistry C, 2015, 119, 1201-1216.	3.1	52
24	Inhomogeneous Transport in Model Hydrated Polymer Electrolyte Supported Ultrathin Films. ACS Nano, 2013, 7, 6767-6773.	14.6	50
25	Locally preferred structure in simple atomic liquids. Journal of Chemical Physics, 2003, 119, 8069-8074.	3.0	45
26	The Anion Effect on Li⁺ Ion Coordination Structure in Ethylene Carbonate Solutions. Journal of Physical Chemistry Letters, 2016, 7, 3554-3559.	4.6	42
27	Statistical physics and liquid water at negative pressures. Physica A: Statistical Mechanics and Its Applications, 2002, 315, 281-289.	2.6	32
28	Aging in a Laponite colloidal suspension: A Brownian dynamics simulation study. Journal of Chemical Physics, 2007, 126, 014905.	3.0	32
29	Relation of vibrational excitations and thermal conductivity to elastic heterogeneities in disordered solids. Physical Review B, 2016, 94, .	3.2	31
30	Solvent and Salt Effect on Lithium Ion Solvation and Contact Ion Pair Formation in Organic Carbonates: A Quantum Chemical Perspective. Journal of Physical Chemistry C, 2018, 122, 25930-25939.	3.1	31
31	Polymer translocation through nano-pores in vibrating thin membranes. Scientific Reports, 2016, 6, 38558.	3.3	28
32	Aging and energy landscapes: application to liquids and glasses. European Physical Journal B, 2002, 30, 351-355.	1.5	25
33	Molecular dynamics simulation of the fragile glass former orthoterphenyl: A flexible molecule model. II. Collective dynamics. Physical Review E, 2001, 64, 021511.	2.1	23
34	Application of Statistical Physics to Understand Static and Dynamic Anomalies in Liquid Water. Journal of Statistical Physics, 2003, 110, 1039-1054.	1.2	23
35	Numerical evaluation of the statistical properties of a potential energy landscape. Journal of Physics Condensed Matter, 2003, 15, S1085-S1094.	1.8	21
36	Sub-diffusion and population dynamics of water confined in soft environments. Nanoscale, 2016, 8, 3314-3325.	5.6	20

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37	Glassy Potts model: A disordered Potts model without a ferromagnetic phase. Physical Review B, 1999, 59, 8401-8404.	3.2	17
38	Vibrational dynamics and thermodynamics, ideal glass transitions and folding transitions, in liquids and biopolymers. AIP Conference Proceedings, 2004, , .	0.4	15
39	Sound damping in glasses: Interplay between anharmonicities and elastic heterogeneities. Physical Review B, 2020, 101, .	3.2	15
40	An operational scheme to determine the locally preferred structure of model liquids. Journal of Non-Crystalline Solids, 2006, 352, 4847-4850.	3.1	14
41	Cutoff nonlinearities in the low-temperature vibrations of glasses and crystals. Physical Review E, 2016, 93, 043314.	2.1	14
42	Anharmonic thermodynamics of vacancies using a neural network potential. Physical Review Materials, 2019, 3, .	2.4	14
43	Water confined in self-assembled ionic surfactant nano-structures. Soft Matter, 2015, 11, 2469-2478.	2.7	13
44	The effect of polymorphism on the structural, dynamic and dielectric properties of plastic crystal water: A molecular dynamics simulation perspective. Journal of Chemical Physics, 2019, 150, 124506.	3.0	13
45	Impact of elastic heterogeneity on the propagation of vibrations at finite temperatures in glasses. Condensed Matter Physics, 2019, 22, 43604.	0.7	13
46	Liquid stability in a model for ortho-terphenyl. Journal of Chemical Physics, 2004, 120, 6128-6134.	3.0	11
47	Molecular dynamics simulation study of the high frequency sound waves in the fragile glass former orthoterphenyl. Journal of Chemical Physics, 2002, 116, 1077-1084.	3.0	9
48	Response to: â€œComment on â€˜Disentangling density and temperature effects in the viscous slowing down of glassforming liquidsâ€™â€‰â€•[J. Chem. Phys. 121, 11503 (2004)]. Journal of Chemical Physics, 2004, 121, 11505.	3.0	9
49	Orientational and induced contributions to the depolarized Rayleigh spectra of liquid and supercooled ortho-terphenyl. Journal of Chemical Physics, 2002, 117, 3289-3295.	3.0	8
50	Equilibrium and out-of-equilibrium thermodynamics in supercooled liquids and glasses. Journal of Physics Condensed Matter, 2003, 15, S351-S357.	1.8	8
51	Effect of Surface Hydrophilicity on the Formation of Nafion Thin Films Inside PEMFC Catalyst Layers: A Computational Study. ECS Transactions, 2013, 45, 101-108.	0.5	8
52	Structure and dynamics of liquid CS2: Going from ambient to elevated pressure conditions. Journal of Chemical Physics, 2016, 145, 154505.	3.0	8
53	Vibrational origin of the fast relaxation processes in molecular glass formers. Europhysics Letters, 2002, 60, 92-98.	2.0	7
54	From Ionic Surfactants to Nafion through Convolutional Neural Networks. Journal of Physical Chemistry B, 2020, 124, 8918-8927.	2.6	7

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55	Quenches and crunches: Does the system explore in ageing the same part of the configuration space explored in equilibrium?. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2002, 82, 695-705.	0.6	6
56	Quenches and crunches: does the system explore in ageing the same part of the configuration space explored in equilibrium?. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2002, 82, 695-705.	0.6	6
57	Re-entrant Phase Transitions and Dynamics of a Nanoconfined Ionic Liquid. Physical Review X, 2018, 8, .	8.9	5
58	Intermittent rearrangements accompanying thermal fluctuations distinguish glasses from crystals. Journal of Chemical Physics, 2020, 153, 154501.	3.0	5
59	Time correlation functions for quantum systems: Validating Bayesian approaches for harmonic oscillators and beyond. Journal of Chemical Physics, 2021, 155, 134108.	3.0	1
60	Water at Positive and Negative Pressures. , 2002, , 59-67.		1