Lapo Casetti

List of Publications by Year
in descending order

66 **papers**	1,703 **citations**

331670

21 **h-index**	40 **g-index**

289244

67 **all docs**	67 **docs citations**	67 **times ranked**	642 **citing authors**

#	Article	IF	Citations
1	Violent relaxation in the Hamiltonian mean field model: II. Non-equilibrium phase diagrams. Journal of Statistical Mechanics: Theory and Experiment, 2022, 2022, 013210.	2.3	3
2	Symplectic coarse graining approach to the dynamics of spherical self-gravitating systems. Monthly Notices of the Royal Astronomical Society, 2022, 512, 3015-3029.	4.4	3
3	Monte Carlo simulations in the unconstrained ensemble. Physical Review E, 2021, 103, L061303.	2.1	4
4	Noise, friction and the radial-orbit instability in anisotropic stellar systems: stochastic Nâ€"body simulations. Proceedings of the International Astronomical Union, 2021, 15, 152-157.	0.0	0
5	Discreteness effects, N-body chaos and the onset of radial-orbit instability. Monthly Notices of the Royal Astronomical Society, 2020, 494, 1027-1034.	4.4	5
6	Phase transitions in the unconstrained ensemble. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 014004.	2.3	4
7	Coarse-grained collisionless dynamics with long-range interactions. Physical Review Research, 2020, 2, .	3.6	4
8	N-body chaos and the continuum limit in numerical simulations of self-gravitating systems, revisited. Monthly Notices of the Royal Astronomical Society, 2019, 489, 5876-5888.	4.4	7
9	Violent relaxation in the Hamiltonian mean field model: I. Cold collapse and effective dissipation. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 043201.	2.3	9
10	Heat transport in oscillator chains with long-range interactions coupled to thermal reservoirs. Physical Review E, 2018, 97, 032102.	2.1	27
11	Concavity, Response Functions and Replica Energy. Entropy, 2018, 20, 907.	2.2	10
12	Dynamical origin of non-thermal states in galactic filaments. Monthly Notices of the Royal Astronomical Society, 2018, 475, 1137-1147.	4.4	9
13	Long-range interacting systems in the unconstrained ensemble. Physical Review E, 2017, 95, 012140.	2.1	18
14	Surprises from quenches in long-range-interacting systems: temperature inversion and cooling. New Journal of Physics, 2016, 18, 103051.	2.9	15
15	Phase transitions in Thirringâ€™s model. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 073205.	2.3	8
16	Reply to â€œComment on â€˜Temperature inversion in long-range interacting systemsâ€™ â€. Physical Review E, 2016, 93, 066102.	2.1	4
17	Temperature inversion in long-range interacting systems. Physical Review E, 2015, 92, 020101.	2.1	22
18	Thermodynamics of Nonadditive Systems. Physical Review Letters, 2015, 114, 230601.	7.8	40

#	ARTICLE	IF	CITATIONS
19	Density of states of the <mml:math altimg="si59.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.el. Physica A, 7b.	2.6	3
20	Velocity filtration and temperature inversion in a system with long-range interactions. European Physical Journal B, 2014, 87, 1.	1.5	14
21	Critical energy density of <i>O</i>(<i>n</i>) models in <i>d</i>=3. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P12001.	2.3	4
22	Exploring the energy landscape of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>X</mml:mi><mml:mi>Y</mml:mi></mml:mrow></mml:math> models. Physical Review E, 2013, 87, .	2.1	17
23	Density of states of continuous and discrete spin models: a case study. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P02007.	2.3	4
24	Geometry of the energy landscape of the self-gravitating ring. Physical Review E, 2012, 86, 041136.	2.1	6
25	First-order coil-globule transition driven by vibrational entropy. Nature Communications, 2012, 3, 1065.	12.8	32
26	Caloric curve of star clusters. Physical Review E, 2012, 85, 061105.	2.1	14
27	Microcanonical Relation between Continuous and Discrete Spin Models. Physical Review Letters, 2011, 106, 057208.	7.8	12
28	Vibrational entropy and the structural organization of proteins. European Physical Journal E, 2010, 33, 89-96.	1.6	5
29	A solvable model of a self-gravitating system. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P05006.	2.3	10
30	Energy landscape and phase transitions in the self-gravitating ring model. Physical Review E, 2009, 80, 060103.	2.1	19
31	Stochastic dynamics of model proteins on a directed graph. Physical Review E, 2009, 79, 061925.	2.1	6
32	Graph theoretical analysis of the energy landscape of model polymers. Physical Review E, 2009, 80, 011905.	2.1	7
33	Kinetic energy and microcanonical nonanalyticities in finite and infinite systems. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P07036.	2.3	15
34	Geometry of the energy landscape and folding transition in a simple model of a protein. Physical Review E, 2008, 77, 051917.	2.1	10
35	Partial equivalence of statistical ensembles and kinetic energy. Physica A: Statistical Mechanics and Its Applications, 2007, 384, 318-334.	2.6	52
36	Topological conditions for discrete symmetry breaking and phase transitions. Journal of Physics A, 2006, 39, 529-545.	1.6	10

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37	Curvature of the Energy Landscape and Folding of Model Proteins. Physical Review Letters, 2006, 97, 218104.	7.8	17
38	Nonanalyticities of Entropy Functions of Finite and Infinite Systems. Physical Review Letters, 2006, 97, 100602.	7.8	21
39	Topology and phase transitions: From an exactly solvable model to a relation between topology and thermodynamics. Physical Review E, 2005, 71, 036152.	2.1	31
40	Weak and strong chaos in Fermiâ€"Pastaâ€"Ulam models and beyond. Chaos, 2005, 15, 015106.	2.5	39
41	Phase Transitions and Topology Changes in Configuration Space. Journal of Statistical Physics, 2003, 111, 1091-1123.	1.2	61
42	Topological signature of first-order phase transitions in a mean-field model. Europhysics Letters, 2003, 62, 775-781.	2.0	71
43	Exact result on topology and phase transitions at any finiteN. Physical Review E, 2002, 65, 036112.	2.1	28
44	Vortex Structures in a Chain of Coupled Bosonic Wells and the Mott Regime. Journal of Low Temperature Physics, 2002, 126, 455-460.	1.4	15
45	Modeling hydration water and its role in polymer folding. Journal of Biological Physics, 2001, 27, 243-256.	1.5	3
46	Model for the hydration of nonpolar compounds and polymers. Physical Review E, 2001, 64, 051805.	2.1	6
47	Geometric approach to Hamiltonian dynamics and statistical mechanics. Physics Reports, 2000, 337, 237-341.	25.6	213
48	Lattice model for cold and warm swelling of polymers in water. Physical Review E, 2000, 61, R2208-R2211.	2.1	23
49	Topological aspects of geometrical signatures of phase transitions. Physical Review E, 1999, 60, R5009-R5012.	2.1	35
50	Topological Origin of the Phase Transition in a Mean-Field Model. Physical Review Letters, 1999, 82, 4160-4163.	7.8	38
51	Geometric approach to chaos in the classical dynamics of Abelian lattice gauge theory. Journal of Physics A, 1999, 32, 3055-3067.	1.6	2
52	Dynamical and statistical properties of Hamiltonian systems with many degrees of freedom. Rivista Del Nuovo Cimento, 1999, 22, 1-74.	5.7	6
53	Chaos in effective classical and quantum dynamics. Physical Review E, 1998, 57, R1223-R1226.	2.1	8
54	Geometry of dynamics and phase transitions in classical latticeÏ†4theories. Physical Review E, 1998, 57, 3886-3899.	2.1	47

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55	Hamiltonian dynamics of the two-dimensional lattice model. Journal of Physics A, 1998, 31, 3357-3381.	1.6	37
56	Chaos in effective classical and quantum dynamics of nonlinear oscillators. European Physical Journal Special Topics, 1998, 08, Pr6-203-Pr6-207.	0.2	0
57	Geometric dynamical observables in rare gas crystals. Physical Review E, 1997, 55, 2539-2545.	2.1	8
58	Geometry of Dynamics, Lyapunov Exponents, and Phase Transitions. Physical Review Letters, 1997, 79, 4361-4364.	7.8	121
59	The Fermi-Pasta-Ulam problem revisited: Stochasticity thresholds in nonlinear Hamiltonian systems. Physical Review E, 1997, 55, 6566-6574.	2.1	83
60	Riemannian theory of Hamiltonian chaos and Lyapunov exponents. Physical Review E, 1996, 54, 5969-5984.	2.1	122
61	Efficient symplectic algorithms for numerical simulations of Hamiltonian flows. Physica Scripta, 1995, 51, 29-34.	2.5	70
62	Relaxation Times in an Anharmonic Crystal with Diluted Impurities. Europhysics Letters, 1995, 32, 549-554.	2.0	9
63	Gaussian Model for Chaotic Instability of Hamiltonian Flows. Physical Review Letters, 1995, 74, 375-378.	7.8	99
64	Analytic computation of the strong stochasticity threshold in Hamiltonian dynamics using Riemannian geometry. Physical Review E, 1993, 48, 4320-4332.	2.1	58
65	Nuclear fusion in excited hydrogen molecules. Zeitschrift Für Physik A, Atomic Nuclei, 1990, 337, 207-210.	0.3	0
66	Traveling towards fame: Albert Einstein and the Eddington eclipse expedition to PrÃncipe and Sobral in 1919. Studi E Saggi, 0, , 421-440.	0.0	0