

Santi Prestipino

List of Publications by Year in descending order

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90
papers

2,049
citations

236925

25
h-index

254184

43
g-index

91
all docs

91
docs citations

91
times ranked

1230
citing authors

#	ARTICLE	IF	CITATIONS
1	String Tension and Stability of Magic Tip-Suspended Nanowires. <i>Science</i> , 2001, 291, 288-290.	12.6	247
2	Phase diagram of the Gaussian-core model. <i>Physical Review E</i> , 2005, 71, 050102.	2.1	142
3	Unusual phase behavior of one-component systems with two-scale isotropic interactions. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 504106.	1.8	91
4	Phase diagram of softly repulsive systems: The Gaussian and inverse-power-law potentials. <i>Journal of Chemical Physics</i> , 2005, 123, 144110.	3.0	90
5	Systematic Improvement of Classical Nucleation Theory. <i>Physical Review Letters</i> , 2012, 108, 225701.	7.8	88
6	Hexatic Phase in the Two-Dimensional Gaussian-Core Model. <i>Physical Review Letters</i> , 2011, 106, 235701.	7.8	77
7	Entropy and the freezing of simple liquids. <i>Physical Review A</i> , 1992, 45, R6966-R6968.	2.5	72
8	MATERIALS SCIENCE: Weird Gold Nanowires. <i>Science</i> , 2000, 289, 561-563.	12.6	59
9	Evaluation of phenomenological one-phase criteria for the melting and freezing of softly repulsive particles. <i>Journal of Chemical Physics</i> , 2006, 124, 244504.	3.0	58
10	The zero-temperature phase diagram of soft-repulsive particle fluids. <i>Soft Matter</i> , 2009, 5, 2795.	2.7	47
11	Anomalous phase behavior of a soft-repulsive potential with a strictly monotonic force. <i>Physical Review E</i> , 2009, 80, 031502.	2.1	46
12	Hexatic phase and water-like anomalies in a two-dimensional fluid of particles with a weakly softened core. <i>Journal of Chemical Physics</i> , 2012, 137, 104503.	3.0	46
13	Anomalous phase behavior in a model fluid with only one type of local structure. <i>Journal of Chemical Physics</i> , 2010, 133, 144504.	3.0	43
14	High-pressure phase diagram of the exp-6 model: The case of Xe. <i>Physical Review B</i> , 2005, 72, .	3.2	39
15	Preroughening, Diffusion, and Growth of a fcc(111) Surface. <i>Physical Review Letters</i> , 1995, 75, 4468-4471.	7.8	38
16	Shape and area fluctuation effects on nucleation theory. <i>Journal of Chemical Physics</i> , 2014, 140, 094501.	3.0	34
17	Entropy, correlations, and ordering in two dimensions. <i>Journal of Chemical Physics</i> , 2000, 113, 2806-2813.	3.0	33
18	Anomalous melting behavior under extreme conditions: Hard matter turning "soft". <i>Journal of Chemical Physics</i> , 2008, 129, 241101.	3.0	33

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19	Statistical geometry of hard particles on a sphere. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1992, 187, 456-474.	2.6	31
20	Hexatic phase and cluster crystals of two-dimensional GEM4 spheres. <i>Journal of Chemical Physics</i> , 2014, 141, 184502.	3.0	31
21	Statistical geometry of hard particles on a sphere: analysis of defects at high density. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1993, 201, 649-665.	2.6	30
22	Scaling of local density correlations in a fluid close to freezing. <i>Journal of Chemical Physics</i> , 2001, 115, 7586-7591.	3.0	30
23	Surface-Melting-Induced Preroughening. <i>Physical Review Letters</i> , 1999, 83, 2753-2756.	7.8	27
24	A fingerprint of surface-tension anisotropy in the free-energy cost of nucleation. <i>Journal of Chemical Physics</i> , 2013, 138, 064508.	3.0	27
25	Statistical Entropy of a Lattice-Gas Model: Multiparticle Correlation Expansion. <i>Journal of Statistical Physics</i> , 1999, 96, 135-167.	1.2	26
26	On entropy and ordering in binary hard-sphere mixtures. <i>Journal of Physics Condensed Matter</i> , 1994, 6, 9853-9865.	1.8	23
27	Entropy from Correlations in TIP4P Water. <i>Journal of Chemical Theory and Computation</i> , 2010, 6, 625-636.	5.3	22
28	Phase diagram of Gaussian-core nematics. <i>Journal of Chemical Physics</i> , 2007, 126, 194902.	3.0	21
29	The barrier to ice nucleation in monatomic water. <i>Journal of Chemical Physics</i> , 2018, 148, 124505.	3.0	19
30	Thermodynamic and structural anomalies of the Gaussian-core model in one dimension. <i>Molecular Physics</i> , 2011, 109, 3001-3013.	1.7	18
31	Freezing of soft-core bosons at zero temperature: A variational theory. <i>Physical Review B</i> , 2018, 98, .	3.2	18
32	Anomalous melting and solid polymorphism of a modified inverse-power potential. <i>Molecular Physics</i> , 2011, 109, 2837-2844.	1.7	17
33	Probing the existence of phase transitions in one-dimensional fluids of penetrable particles. <i>Physical Review E</i> , 2015, 92, 022138.	2.1	17
34	On the determination of phase boundaries via thermodynamic integration across coexistence regions. <i>Journal of Chemical Physics</i> , 2015, 142, 214502.	3.0	17
35	Encapsulation of spherical nanoparticles by colloidal dimers. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 24922-24930.	2.8	17
36	Ground state of weakly repulsive soft-core bosons on a sphere. <i>Physical Review A</i> , 2019, 99, .	2.5	17

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37	Shapes of a liquid droplet in a periodic box. <i>Physical Review E</i> , 2015, 92, 022141.	2.1	15
38	Density-functional theory of a lattice-gas model with vapour, liquid, and solid phases. <i>Journal of Physics Condensed Matter</i> , 2003, 15, 3931-3956.	1.8	13
39	The entropy multiparticle-correlation expansion for a mixture of spherical and elongated particles. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2004, 2004, P09008.	2.3	13
40	Density anomaly in a fluid of softly repulsive particles embedded in a spherical surface. <i>Soft Matter</i> , 2012, 8, 11708.	2.7	13
41	On the accuracy of the melting curves drawn from modelling a solid as an elastic medium. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 035102.	1.8	13
42	Self-assembly in a model colloidal mixture of dimers and spherical particles. <i>Journal of Chemical Physics</i> , 2017, 146, 084902.	3.0	13
43	Cluster phases of penetrable rods on a line. <i>Physical Review E</i> , 2014, 90, 042306.	2.1	12
44	Supercooled water escaping from metastability. <i>Scientific Reports</i> , 2014, 4, 7230.	3.3	12
45	Twofold reentrant melting in a double-Gaussian fluid. <i>Journal of Chemical Physics</i> , 2014, 140, 084906.	3.0	11
46	Aggregation of colloidal spheres mediated by Janus dimers: A Monte Carlo study. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 532, 397-404.	4.7	11
47	Two-dimensional mixture of amphiphilic dimers and spheres: Self-assembly behaviour. <i>Journal of Chemical Physics</i> , 2017, 147, 144902.	3.0	11
48	The Concavity of Entropy and Extremum Principles in Thermodynamics. <i>Journal of Statistical Physics</i> , 2003, 111, 479-493.	1.2	10
49	Self-Assembled Structures of Colloidal Dimers and Disks on a Spherical Surface. <i>Entropy</i> , 2021, 23, 585.	2.2	10
50	Disordered flat phase and phase diagram for restricted solid-on-solid models of fcc (110) surfaces. <i>Physical Review B</i> , 1996, 53, 13169-13186.	3.2	9
51	Variational theory of preroughening. <i>Physical Review B</i> , 1999, 59, 3108-3124.	3.2	9
52	Entropy and multi-particle correlations in two-dimensional lattice gases. <i>European Physical Journal B</i> , 1999, 11, 621-627.	1.5	9
53	Two-dimensional lattice liquids. <i>Physical Review E</i> , 2000, 62, 2177-2187.	2.1	9
54	Phase behavior of a fluid with a double Gaussian potential displaying waterlike features. <i>Physical Review E</i> , 2014, 90, 012305.	2.1	9

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55	Clusterization of weakly-interacting bosons in one dimension: an analytic study at zero temperature. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019, 52, 015002.	2.1	9
56	Inverse melting in lattice-gas models. <i>Physical Review E</i> , 2007, 75, 011107.	2.1	8
57	Re-entrant melting of the exp-6 fluid: the role of the repulsion softness. <i>Physics and Chemistry of Liquids</i> , 2010, 48, 477-487.	1.2	7
58	Phase behavior near and beyond the thermodynamic stability threshold. <i>Physical Review E</i> , 2015, 92, 050301.	2.1	7
59	Complex Self-Assembly from Simple Interaction Rules in Model Colloidal Mixtures. <i>Journal of Physical Chemistry B</i> , 2019, 123, 9272-9280.	2.6	7
60	PREROUGHENING, AND DISORDERED FLAT PHASE SEPARATION IN SURFACE MOLECULAR DYNAMICS SIMULATIONS. <i>Surface Review and Letters</i> , 1997, 04, 843-846.	1.1	6
61	Lattice density-functional theory of surface melting: the effect of a square-gradient correction. <i>Journal of Physics Condensed Matter</i> , 2003, 15, 8065-8080.	1.8	6
62	Liquid-solid coexistence via the metadynamics approach. <i>Journal of Chemical Physics</i> , 2008, 128, 114707.	3.0	6
63	Minimum-density anomaly and spatial ordering of softly repulsive particles in a narrow channel. <i>Soft Matter</i> , 2013, 9, 9876.	2.7	6
64	Characterization of the structural collapse undergone by an unstable system of ultrasoft particles. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016, 457, 492-505.	2.6	6
65	Bose-Hubbard model on polyhedral graphs. <i>Physical Review A</i> , 2021, 103, .	2.5	6
66	Clustering in Mixtures of SALR Particles and Hard Spheres with Cross Attraction. <i>Journal of Physical Chemistry B</i> , 2022, 126, 2027-2039.	2.6	6
67	Disordered flat phase in a solid-on-solid model fcc (111) surface. <i>Surface Science</i> , 1997, 377-379, 509-513.	1.9	5
68	Preroughening, fractional-layer occupancies, and phase separation at a disordered flat metal surface. <i>Physical Review B</i> , 1998, 57, 10157-10165.	3.2	5
69	Markov state modeling of sliding friction. <i>Physical Review E</i> , 2016, 94, 053001.	2.1	5
70	Molecular dynamics determination of liquid-vapor coexistence in molten alkali halides. <i>Physical Review E</i> , 2018, 98, 010103.	2.1	5
71	Statistical geometry of four calottes on a sphere. <i>Journal of Statistical Physics</i> , 1994, 75, 1093-1118.	1.2	4
72	Universal behavior of soft-core fluids near the threshold of thermodynamic stability. <i>Journal of Chemical Physics</i> , 2018, 148, 084904.	3.0	4

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73	Analog of surface preroughening in a two-dimensional lattice Coulomb gas. <i>Physical Review E</i> , 2002, 66, 021602.	2.1	3
74	A maximum-entropy approach to the adiabatic freezing of a supercooled liquid. <i>Journal of Chemical Physics</i> , 2013, 138, 164501.	3.0	3
75	Volume crossover in deeply supercooled water adiabatically freezing under isobaric conditions. <i>Journal of Chemical Physics</i> , 2013, 138, 184504.	3.0	3
76	Entropy Multiparticle Correlation Expansion for a Crystal. <i>Entropy</i> , 2020, 22, 1024.	2.2	3
77	Ultracold Bosons on a Regular Spherical Mesh. <i>Entropy</i> , 2020, 22, 1289.	2.2	3
78	A variational mean-field study of clusterization in a zero-temperature system of soft-core bosons. <i>EPJ Web of Conferences</i> , 2020, 230, 00008.	0.3	3
79	Early stages of aggregation in fluid mixtures of dimers and spheres: a theoretical and simulation study. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 22661-22672.	2.8	3
80	Phase transitions at the early stages of surface melting. <i>Surface Science</i> , 2000, 454-456, 608-612.	1.9	2
81	Kink-kink interactions and pre-roughening of vicinal surfaces. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2001, 81, 637-674.	0.6	2
82	Spontaneous Freezing of Supercooled Water under Isochoric and Adiabatic Conditions. <i>Journal of Physical Chemistry B</i> , 2013, 117, 8189-8195.	2.6	2
83	Analytic solution of two-density integral equations for sticky Janus dumbbells with arbitrary monomer diameters. <i>Journal of Chemical Physics</i> , 2016, 144, 234504.	3.0	2
84	Statistical Mechanics and Thermodynamics of Liquids and Crystals. <i>Entropy</i> , 2021, 23, 715.	2.2	2
85	Structure factors and x-ray diffraction intensities in molten alkali halides. <i>Journal of Physics Communications</i> , 2020, 4, 075017.	1.2	2
86	Classical and Quantum Gases on a Semiregular Mesh. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 10053.	2.5	2
87	A probabilistic model for the equilibration of an ideal gas. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 340, 373-379.	2.6	1
88	The ideal gas as an urn model: derivation of the entropy formula. <i>European Journal of Physics</i> , 2005, 26, 137-150.	0.6	1
89	Condensation and Crystal Nucleation in a Lattice Gas with a Realistic Phase Diagram. <i>Entropy</i> , 2022, 24, 419.	2.2	1
90	Can one have preroughening of vicinal surfaces?. <i>Surface Science</i> , 2000, 454-456, 652-656.	1.9	0