Umberto Marini Bettolo Marconi

List of Publications by Year
in descending order

165 papers	7,374 citations	66234 42 h-index	58464 82 g-index
168 all docs	168 docs citations	168 times ranked	3461 citing authors

#	Article	IF	Citations
1	Dynamics of active particles with space-dependent swim velocity. Soft Matter, 2022, 18, 1412-1422.	1.2	24
2	Spatial velocity correlations in inertial systems of active Brownian particles. Soft Matter, 2021, 17, 4109-4121.	1.2	38
3	Collective effects in confined active Brownian particles. Journal of Chemical Physics, 2021, 154, 244901.	1.2	14
4	Hydrodynamics of simple active liquids: the emergence of velocity correlations. New Journal of Physics, 2021, 23, 103024.	1.2	13
5	Inertial self-propelled particles. Journal of Chemical Physics, 2021, 154, 024902.	1.2	58
6	Correlated escape of active particles across a potential barrier. Journal of Chemical Physics, 2021, 155, 234902.	1.2	15
7	Fiberâ€“Sample Distance, An Important Parameter To Be Considered in Headspace Solid-Phase Microextraction Applications. Analytical Chemistry, 2020, 92, 7478-7484.	3.2	17
8	Active matter at high density: Velocity distribution and kinetic temperature. Journal of Chemical Physics, 2020, 153, 184901.	1.2	23
9	Hidden velocity ordering in dense suspensions of self-propelled disks. Physical Review Research, 2020, 2, .	1.3	59
10	Time-dependent properties of interacting active matter: Dynamical behavior of one-dimensional systems of self-propelled particles. Physical Review Research, 2020, 2, .	1.3	23
11	The entropy production of Ornsteinâ€“Uhlenbeck active particles: a path integral method for correlations. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 053203.	0.9	67
12	Active escape dynamics: The effect of persistence on barrier crossing. Journal of Chemical Physics, 2019, 150, 024902.	1.2	50
13	Transport of active particles in an open-wedge channel. Journal of Chemical Physics, 2019, 150, 144903.	1.2	20
14	Activity induced delocalization and freezing in self-propelled systems. Scientific Reports, 2019, 9, 1386.	1.6	39
15	Active chiral particles under confinement: surface currents and bulk accumulation phenomena. Soft Matter, 2019, 15, 2627-2637.	1.2	53
16	A comparative study between two models of active cluster crystals. Scientific Reports, 2019, 9, 16687.	1.6	25
17	Active Fluids Within the Unified Coloured Noise Approximation. Soft and Biological Matter, 2019, , 239-269.	0.3	2
18	Effective equilibrium picture in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>x</mml:mi><mml:mi>y</mml:mi></mml:mrow></mml:ma model with exponentially correlated noise. Physical Review E, 2018, 97, 022605.	0.8	9

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19	Effective equilibrium states in mixtures of active particles driven by colored noise. Physical Review E, 2018, 97, 012601.	0.8	22
20	Linear response and correlation of a self-propelled particle in the presence of external fields. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 033203.	0.9	39
21	Active particles under confinement and effective force generation among surfaces. Soft Matter, 2018, 14, 9044-9054.	1.2	70
22	Comment on â€œEntropy Production and Fluctuation Theorems for Active Matterâ€. Physical Review Letters, 2018, 121, 139801.	2.9	24
23	Heat, temperature and Clausius inequality in a model for active Brownian particles. Scientific Reports, 2017, 7, 46496.	1.6	71
24	Frequency-control of protein translocation across an oscillating nanopore. Physical Chemistry Chemical Physics, 2017, 19, 11260-11272.	1.3	8
25	Self-propulsion against a moving membrane: Enhanced accumulation and drag force. Physical Review E, 2017, 96, 032601.	0.8	14
26	Electrokinetic Lattice Boltzmann Solver Coupled to Molecular Dynamics: Application to Polymer Translocation. Langmuir, 2017, 33, 11635-11645.	1.6	10
27	Pressure in an exactly solvable model of active fluid. Journal of Chemical Physics, 2017, 147, 024903.	1.2	23
28	Effective equilibrium states in the colored-noise model for active matter I. Pairwise forces in the Fox and unified colored noise approximations. Journal of Statistical Mechanics: Theory and Experiment, 2017, 2017, 113207.	0.9	48
29	Effective equilibrium states in the colored-noise model for active matter II. A unified framework for phase equilibria, structure and mechanical properties. Journal of Statistical Mechanics: Theory and Experiment, 2017, 2017, 113208.	0.9	30
30	Clausius Relation for Active Particles: What Can We Learn from Fluctuations. Entropy, 2017, 19, 356.	1.1	43
31	Critical phenomena in active matter. Physical Review E, 2016, 94, 052602.	0.8	28
32	Velocity distribution in active particles systems. Scientific Reports, 2016, 6, 23297.	1.6	54
33	Pressure and surface tension of an active simple liquid: a comparison between kinetic, mechanical and free-energy based approaches. Soft Matter, 2016, 12, 5727-5738.	1.2	41
34	Effective potential method for active particles. Molecular Physics, 2016, 114, 2400-2410.	0.8	27
35	Multidimensional stationary probability distribution for interacting active particles. Scientific Reports, 2015, 5, 10742.	1.6	171
36	Tracer diffusion of hard-sphere binary mixtures under nano-confinement. Journal of Chemical Physics, 2015, 143, 184501.	1.2	14

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37	Controlling electroosmotic flows by polymer coatings: A joint experimental-theoretical investigation. Journal of Chemical Physics, 2015, 143, 184907.	1.2	8
38	Towards a statistical mechanical theory of active fluids. Soft Matter, 2015, 11, 8768-8781.	1.2	109
39	Steric Modulation of Ionic Currents in DNA Translocation Through Nanopores. Journal of Statistical Physics, 2015, 158, 1181-1194.	0.5	1
40	Electroosmotic flow in polymer-coated slits: a joint experimental/simulation study. Microfluidics and Nanofluidics, 2015, 18, 475-482.	1.0	16
41	Modulation of current through a nanopore induced by a charged globule: Implications for DNA-docking. Europhysics Letters, 2014, 108, 46002.	0.7	8
42	Lattice Boltzmann method for mixtures at variable Schmidt number. Journal of Chemical Physics, 2014, 141, 014102.	1.2	5
43	Kinetic Density Functional Theory: A Microscopic Approach to Fluid Mechanics. Communications in Theoretical Physics, 2014, 62, 596-606.	1.1	6
44	Electro-osmotic flow in coated nanocapillaries: a theoretical investigation. Physical Chemistry Chemical Physics, 2014, 16, 25473-25482.	1.3	14
45	Weighted density Lattice Boltzmann approach to fluids under confinement. Molecular Physics, 2013, 111, 3126-3135.	0.8	3
46	Ionic conduction in non-uniform nanopores and DNA translocation: a Nernstâ€"Planckâ€"Jacobs one-dimensional description. Molecular Physics, 2013, 111, 3493-3501.	0.8	2
47	Effective electrodiffusion equation for non-uniform nanochannels. Journal of Chemical Physics, 2013, 138, 244107.	1.2	17
48	SIMULATING NANOFLUIDS VIA THE WEIGHTED DENSITY LATTICE BOLTZMANN APPROACH. International Journal of Modern Physics C, 2013, 24, 1340013.	0.8	0
49	About an H-theorem for systems with non-conservative interactions. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P08003.	0.9	11
50	Stabilized lattice Boltzmann-Enskog method for compressible flows and its application to one- and two-component fluids in nanochannels. Physical Review E, 2012, 85, 036707.	0.8	7
51	Nonequilibrium fluctuations in a driven stochastic Lorentz gas. Physical Review E, 2012, 85, 031112.	0.8	19
52	Charge Transport in Nanochannels: A Molecular Theory. Langmuir, 2012, 28, 13727-13740.	1.6	37
53	Thermally induced directed currents in hard rod systems. Granular Matter, 2012, 14, 111-114.	1.1	0
54	Dynamics of fluid mixtures in nanospaces. Journal of Chemical Physics, 2011, 134, 064118.	1.2	24

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55	Electro-osmotic flows under nanoconfinement: A self-consistent approach. Europhysics Letters, 2011, 95, 44002.	0.7	23
56	Non-local kinetic theory of inhomogeneous liquid mixtures. Molecular Physics, 2011, 109, 1265-1274.	0.8	9
57	Multicomponent diffusion in nanosystems. Journal of Chemical Physics, 2011, 135, 044104.	1.2	16
58	Translocation process of structured polypeptides across nanopores. Spectroscopy, 2010, 24, 421-426.	0.8	1
59	Dynamic density functional theory versus kinetic theory of simple fluids. Journal of Physics Condensed Matter, 2010, 22, 364110.	0.7	26
60	Granular ratchets. European Physical Journal: Special Topics, 2009, 179, 197-206.	1.2	11
61	A Statistical Model for Translocation of Structured Polypeptide Chains through Nanopores. Journal of Physical Chemistry B, 2009, 113, 10348-10356.	1.2	44
62	Models of granular ratchets. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P07004.	0.9	8
63	Kinetic theory of correlated fluids: From dynamic density functional to Lattice Boltzmann methods. Journal of Chemical Physics, 2009, 131, 014105.	1.2	50
64	Fluctuationâ€"dissipation: Response theory in statistical physics. Physics Reports, 2008, 461, 111-195.	10.3	577
65	Noise rectification and fluctuations of an asymmetric inelastic piston. Europhysics Letters, 2008, 82, 50008.	0.7	29
66	Beyond dynamic density functional theory: the role of inertia. Journal of Physics Condensed Matter, 2008, 20, 494233.	0.7	17
67	Beyond the dynamic density functional theory for steady currents: Application to driven colloidal particles in a channel. Journal of Chemical Physics, 2008, 128, 164704.	1.2	18
68	Lattice Boltzmann method for inhomogeneous fluids. Europhysics Letters, 2008, 81, 34001.	0.7	26
69	Theory of thermostatted inhomogeneous granular fluids: A self-consistent density functional description. Journal of Chemical Physics, 2007, 126, 164904.	1.2	27
70	Phase-space approach to dynamical density functional theory. Journal of Chemical Physics, 2007, 126, 184109.	1.2	45
71	Multiple time-scale approach for a system of Brownian particles in a nonuniform temperature field. Physical Review E, 2007, 75, 021101.	0.8	13
72	Granular Brownian ratchet model. Physical Review E, 2007, 75, 061124.	0.8	48

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73	Generalized Casimir forces in nonequilibrium systems. Physical Review E, 2007, 76, 011113.	0.8	22
74	Casimir forces in granular and other non equilibrium systems. Granular Matter, 2007, 10, 29-36.	1.1	6
75	Nonequilibrium inertial dynamics of colloidal systems. Journal of Chemical Physics, 2006, 124, 164901.	1.2	37
76	Fluctuation-Induced Casimir Forces in Granular Fluids. Physical Review Letters, 2006, 96, 178001.	2.9	53
77	Inelastic Takahashi hard-rod gas. Journal of Chemical Physics, 2006, 124, 044507.	1.2	2
78	Transport of a heated granular gas in a washboard potential. Journal of Chemical Physics, 2006, 125, 204711.	1.2	2
79	Bistable clustering in driven granular mixtures. Physica A: Statistical Mechanics and Its Applications, 2005, 347, 411-428.	1.2	23
80	Granular gases in compartmentalized systems. Journal of Physics Condensed Matter, 2005, 17, S2641-S2656.	0.7	2
81	The inelastic hard dimer gas: A nonspherical model for granular matter. Journal of Chemical Physics, 2005, 122, 164505.	1.2	15
82	Ordering Phenomena in Cooling Granular Mixtures. Physical Review Letters, 2004, 92, 174502.	2.9	30
83	Dynamics of vibrofluidized granular gases in periodic structures. Physical Review E, 2004, 69, 011302.	0.8	12
84	Thermal convection in monodisperse and bidisperse granular gases: A simulation study. Physical Review E, 2004, 69, 061304.	0.8	40
85	Inelastic hard rods in a periodic potential. Journal of Chemical Physics, 2004, 121, 5125-5132.	1.2	19
86	Application of Simple Models to the Study of Nonequilibrium Behaviour of Inelastic Gases. Phase Transitions, 2004, 77, 863-888.	0.6	2
87	Fluid-like behavior of a one-dimensional granular gas. Journal of Chemical Physics, 2004, 120, 35-42.	1.2	38
88	Dynamical properties of vibrfluidized granular mixtures. Granular Matter, 2003, 5, 75-83.	1.1	46
89	Noise Activated Granular Dynamics. Physical Review Letters, 2003, 90, 064301.	2.9	28
90	Statistical mechanics of granular gases in compartmentalized systems. Physical Review E, 2003, 68, 031306.	0.8	8

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91	Surface and capillary transitions in an associating binary mixture model. Physical Review E, 2003, 67, 041502.	0.8	2
92	Velocity Fluctuations in Cooling Granular Gases. Lecture Notes in Physics, 2003, , 95-117.	0.3	1
93	Cooling of a lattice granular fluid as an ordering process. Physical Review E, 2002, 65, 051301.	0.8	55
94	Steady-state properties of a mean-field model of driven inelastic mixtures. Physical Review E, 2002, 66, 011301.	0.8	61
95	Driven low density granular mixtures. Physical Review E, 2002, 66, 051304.	0.8	59
96	KINETICS MODELS OF INELASTIC GASES. Mathematical Models and Methods in Applied Sciences, 2002, 12, 965-983.	1.7	28
97	Mean-field model of free-cooling inelastic mixtures. Physical Review E, 2002, 65, 051305.	0.8	52
98	Influence of correlations on the velocity statistics of scalar granular gases. Europhysics Letters, 2002, 58, 14-20.	0.7	107
99	Fingering in slow combustion. Physica A: Statistical Mechanics and Its Applications, 2002, 312, 381-391.	1.2	7
100	MODELS OF FREE COOLING GRANULAR GASES. International Journal of Modeling, Simulation, and Scientific Computing, 2001, 04, 321-331.	0.9	5
101	Driven granular gases with gravity. Physical Review E, 2001, 64, 011301.	0.8	19
102	Janssen's law and stress fluctuations in confined dry granular materials. Physica A: Statistical Mechanics and Its Applications, 2000, 280, 279-288.	1.2	13
103	Interfacial dynamics in rapid solidification processes. Physica A: Statistical Mechanics and Its Applications, 2000, 280, 148-154.	1.2	5
104	Novel Monte-Carlo lattice approach to rapid directional solidification of binary alloys. Physica A: Statistical Mechanics and Its Applications, 2000, 277, 35-46.	1.2	2
105	Motion of a granular particle on a rough line. Europhysics Letters, 2000, 51, 685-690.	0.7	5
106	Groove instability in cellular solidification. Physical Review E, 2000, 63, .	0.8	2
107	Dynamic density functional theory of fluids. Journal of Physics Condensed Matter, 2000, 12, A413-A418.	0.7	170
108	A microscopic model for solidification. Europhysics Letters, 1999, 47, 338-344.	0.7	8

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109	Kinetic approach to granular gases. Physical Review E, 1999, 59, 5582-5595.	0.8	119
110	Phase equilibria of a lattice model of associating binary mixtures. Physical Chemistry Chemical Physics, 1999, 1, 4271-4275.	1.3	4
111	Dynamic density functional theory of fluids. Journal of Chemical Physics, 1999, 110, 8032-8044.	1.2	550
112	Critical exponents in the Linâ€"Taylor model of asymmetrical associating binary mixtures. Molecular Physics, 1998, 95, 571-577.	0.8	3
113	Clustering and Non-Gaussian Behavior in Granular Matter. Physical Review Letters, 1998, 81, 3848-3851.	2.9	174
114	Phase separation in systems with absorbing states. Europhysics Letters, 1998, 43, 552-557.	0.7	1
115	Interface pinning and slow ordering kinetics on infinitely ramified fractal structures. Physical Review E, 1998, 57, 1290-1301.	0.8	10
116	Critical properties of the Ising model on Sierpinski fractals: A finite-size scaling-analysis approach. Physical Review B, 1998, 58, 14387-14396.	1.1	50
117	Complex fluid behaviour of strongly asymmetric binary mixtures: thermodynamic properties of a generalized Linâ€"Taylor model. Molecular Physics, 1998, 93, 501-508.	0.8	6
118	Domain growth on percolation structures. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1998, 77, 265-276.	0.6	1
119	Diffusion-controlled growth of a solid cylinder into its undercoded melt:Instabilities and pattern formation studied with the phase-field model. Physical Review E, 1997, 55, 3087-3091.	0.8	1
120	Soluble phase field model. Physical Review E, 1997, 56, 77-87.	0.8	4
121	Domain growth on self-similar structures. Physical Review E, 1997, 55, 1311-1314.	0.8	11
122	Comment on â€œExact Results for the Lower Critical Solution in the Asymmetric Model of an Interacting Binary Mixtureâ€• Physical Review Letters, 1997, 79, 3543-3543.	2.9	7
123	Time dependent Ginzburg - Landau model in the absence of translational invariance. Non-conserved order parameter domain growth. Journal of Physics A, 1997, 30, 1069-1088.	1.6	13
124	(N) model for charge density waves. Physica A: Statistical Mechanics and Its Applications, 1996, 225, 281-293.	1.2	1
125	Growth kinetics in a phase field model with continuous symmetry. Physical Review E, 1996, 54, 153-162.	0.8	4
126	Growth in systems of vesicles and membranes. Physical Review E, 1996, 53, 5123-5129.	0.8	4

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127	Phase-field model for dendritic growth in a channel. Physical Review E, 1996, 53, 5039-5043.	0.8	16
128	Domain coarsening via heat diffusion: A numerical study with the phase field model. Europhysics Letters, 1996, 36, 431-436.	0.7	8
129	Effective action method for the Langevin equation. Physical Review E, 1995, 51, 4237-4245.	0.8	8
130	Diffusion Limited Growth in Systems with Continuous Symmetry. Physical Review Letters, 1995, 75, 2168-2171.	2.9	5
131	Complexity of the Minimum Energy Configurations. Physical Review Letters, 1995, 75, 637-640.	2.9	0
132	Time-Dependent Ginzburg-Landau Equation for an <i>N</i> -Component Model of Self-Assembled Fluids. Europhysics Letters, 1995, 30, 349-354.	0.7	13
133	Effective action method for computing next to leading corrections of O (N) models. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 319, 171-177.	1.5	8
134	Poreâ€end effects on adsorption hysteresis in cylindrical and slitlike pores. Journal of Chemical Physics, 1992, 97, 6942-6952.	1.2	77
135	Ergodic properties of high-dimensional symplectic maps. Physical Review A, 1991, 44, 2263-2270.	1.0	63
136	Crossover between complete wetting and critical adsorption. Physica A: Statistical Mechanics and Its Applications, 1991, 171, 69-79.	1.2	6
137	Monte Carlo simulations in fermionic systems: The three band Hubbard model case. Physica A: Statistical Mechanics and Its Applications, 1991, 171, 139-158.	1.2	0
138	Structure effects and phase equilibria of Lennard-Jones mixtures in a cylindrical pore.. Molecular Physics, 1991, 72, 1081-1097.	0.8	19
139	Novel scaling behavior of directed polymers: Disorder distribution with long tails. Journal of Statistical Physics, 1990, 61, 885-889.	0.5	13
140	Structure of the liquid-vapor interface: A nonperturbative approach to the theory of interfacial fluctuations. Physical Review A, 1990, 41, 6732-6740.	1.0	1
141	Microscopic model for hysteresis and phase equilibria of fluids confined between parallel plates. Physical Review A, 1989, 39, 4109-4116.	1.0	73
142	Hardâ€sphere mixtures near a hard wall. Journal of Chemical Physics, 1989, 90, 3704-3712.	1.2	86
143	Exact two-particle effective interaction and superconductivity in the two-level Hubbard model. Physical Review B, 1989, 39, 4277-4284.	1.1	7
144	Lennard-Jones Mixtures in a Cylindrical Pore. A Comparison of Simulation and Density Functional Theory. Molecular Simulation, 1989, 2, 393-411.	0.9	53

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145	A Model of Hysteresis in Narrow Pores. Europhysics Letters, 1989, 8, 531-535.	0.7	28
146	Renormalization group study of the three state three dimensional Potts model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 231, 157-160.	1.5	15
147	Phase diagram of the Z(3) spin model in three dimensions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 217, 314-318.	1.5	19
148	On the statistical mechanics of interfaces and interfacial fluctuations. Physica A: Statistical Mechanics and Its Applications, 1989, 159, 221-238.	1.2	6
149	A variational study of the phase diagram of the potts three state model versus Monte Carlo simulation. Physica A: Statistical Mechanics and Its Applications, 1989, 161, 284-299.	1.2	3
150	Fluid mixtures in narrow cylindrical pores: Computer simulation and theory. International Journal of Thermophysics, 1988, 9, 1051-1060.	1.0	14
151	Lennardâ€Jones fluids in cylindrical pores: Nonlocal theory and computer simulation. Journal of Chemical Physics, 1988, 88, 6487-6500.	1.2	224
152	Critical adsorption and finite-geometry effects. Physical Review A, 1988, 38, 6267-6279.	1.0	26
153	Phase equilibria of fluid interfaces and confined fluids. Molecular Physics, 1987, 60, 573-595.	0.8	597
154	Phase equilibria and solvation forces for fluids confined between parallel walls. Journal of Chemical Physics, 1987, 86, 7138-7148.	1.2	286
155	Phase transitions in a confined lattice gas: Prewetting and capillary condensation. Physica A: Statistical Mechanics and Its Applications, 1987, 141, 187-210.	1.2	77
156	Fluids in narrow pores: Adsorption, capillary condensation, and critical points. Journal of Chemical Physics, 1986, 84, 2376-2399.	1.2	489
157	Capillary condensation and adsorption in cylindrical and slit-like pores. Journal of the Chemical Society, Faraday Transactions 2, 1986, 82, 1763.	1.1	364
158	Comment on â€˜â€˜Simple theory for the critical adsorption of a fluidâ€™â€™. Physical Review A, 1986, 34, 3504-3507.	1.0	5
159	The role of wetting films in capillary condensation and rise: Influence of long-range forces. Chemical Physics Letters, 1985, 114, 415-422.	1.2	82
160	Pairwise correlations at a fluid-fluid interface. Molecular Physics, 1985, 54, 1357-1392.	0.8	20
161	Capillary condensation versus prewetting. Physical Review A, 1985, 32, 3817-3820.	1.0	50
162	The structure of size-asymmetric electrolytes at charged surfaces: The unrestricted primitive model in the HNC/MSA approximation. Chemical Physics Letters, 1984, 107, 609-612.	1.2	13

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163	On the failure of certain integral equation theories to account for complete wetting at solid-fluid interfaces. Molecular Physics, 1983, 50, 993-1011.	0.8	71
164	On the antiferromagnetic phase in the Hubbard model. Journal of Physics C: Solid State Physics, 1982, 15, L925-L928.	1.5	2
165	Mode coupling theory of charge fluctuation spectrum in a binary ionic liquid. Societa Italiana Di Fisica Nuovo Cimento B-General Physics, Relativity Astronomy and Mathematical Physics and Methods, 1980, 57, 319-340.	0.2	11