

Emanuela Zaccarelli

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/7196905/emanuela-zaccarelli-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

152
papers

8,410
citations

47
h-index

89
g-index

161
ext. papers

9,278
ext. citations

6.2
avg, IF

6.31
L-index

#	Paper	IF	Citations
152	Onset of criticality in hyper-auxetic polymer networks.. <i>Nature Communications</i> , 2022 , 13, 527	17.4	1
151	Link between Morphology, Structure, and Interactions of Composite Microgels.. <i>Macromolecules</i> , 2022 , 55, 1834-1843	5.5	0
150	Critical active dynamics is captured by a colored-noise driven field theory. <i>Communications Physics</i> , 2022 , 5,	5.4	1
149	The role of polymer structure on water confinement in poly(N-isopropylacrylamide) dispersions. <i>Journal of Molecular Liquids</i> , 2022 , 355, 118924	6	0
148	Modeling Solution Behavior of Poly(-isopropylacrylamide): A Comparison between Water Models.. <i>Journal of Physical Chemistry B</i> , 2022 ,	3.4	2
147	Charge affinity and solvent effects in numerical simulations of ionic microgels. <i>Journal of Physics Condensed Matter</i> , 2021 , 33, 084001	1.8	3
146	Glass and Jamming Rheology in Soft Particles Made of PNIPAM and Polyacrylic Acid. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	3
145	Dynamical properties of different models of elastic polymer rings: Confirming the link between deformation and fragility. <i>Journal of Chemical Physics</i> , 2021 , 154, 154901	3.9	1
144	Volume fraction determination of microgel composed of interpenetrating polymer networks of PNIPAM and polyacrylic acid. <i>Journal of Physics Condensed Matter</i> , 2021 , 33,	1.8	5
143	Effect of Chain Polydispersity on the Elasticity of Disordered Polymer Networks. <i>Macromolecules</i> , 2021 , 54, 3769-3779	5.5	13
142	Gel Formation in Reversibly Cross-Linking Polymers. <i>Macromolecules</i> , 2021 , 54, 6613-6627	5.5	2
141	Effect of Internal Architecture on the Assembly of Soft Particles at Fluid Interfaces. <i>ACS Nano</i> , 2021 ,	16.7	9
140	On the Role of Competing Interactions in Charged Colloids with Short-Range Attraction. <i>Annual Review of Condensed Matter Physics</i> , 2021 , 12, 51-70	19.7	10
139	Molecular insights on poly(-isopropylacrylamide) coil-to-globule transition induced by pressure. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 5984-5991	3.6	4
138	Proteinlike dynamical transition of hydrated polymer chains. <i>Physical Review Research</i> , 2021 , 3,	3.9	4
137	Effective potentials induced by mixtures of patchy and hard co-solutes. <i>Journal of Chemical Physics</i> , 2021 , 155, 064901	3.9	0
136	Two-step deswelling in the Volume Phase Transition of thermoresponsive microgels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	5

135	Thermoresponsivity of poly(N-isopropylacrylamide) microgels in water-trehalose solution and its relation to protein behavior. <i>Journal of Colloid and Interface Science</i> , 2021 , 604, 705-718	9.3	4
134	Universality class of the motility-induced critical point in large scale off-lattice simulations of active particles. <i>Soft Matter</i> , 2021 , 17, 3807-3812	3.6	13
133	Gellan Gum Microgels as Effective Agents for a Rapid Cleaning of Paper. <i>ACS Applied Polymer Materials</i> , 2020 , 2, 2791-2801	4.3	11
132	Atomic scale investigation of the volume phase transition in concentrated PNIPAM microgels. <i>Journal of Chemical Physics</i> , 2020 , 152, 204904	3.9	5
131	Tuning the rheological behavior of colloidal gels through competing interactions. <i>Physical Review Materials</i> , 2020 , 4,	3.2	8
130	Static and dynamic properties of block copolymer based grafted nanoparticles across the non-ergodicity transition. <i>Physics of Fluids</i> , 2020 , 32, 127101	4.4	4
129	Microgels at Interfaces Behave as 2D Elastic Particles Featuring Reentrant Dynamics. <i>Physical Review X</i> , 2020 , 10,	9.1	13
128	Crowding in the Eye Lens: Modeling the Multisubunit Protein β Crystallin with a Colloidal Approach. <i>Biophysical Journal</i> , 2020 , 119, 2483-2496	2.9	1
127	Molecular description of the coil-to-globule transition of Poly(N-isopropylacrylamide) in water/ethanol mixture at low alcohol concentration. <i>Journal of Molecular Liquids</i> , 2020 , 297, 111928	6	17
126	Coincidence of the freezing and the onset of caging in hard sphere and Lennard-Jones fluids. <i>Journal of Chemical Physics</i> , 2019 , 151, 104501	3.9	2
125	Modeling Microgels with a Controlled Structure across the Volume Phase Transition. <i>Macromolecules</i> , 2019 , 52, 7584-7592	5.5	27
124	Numerical modelling of non-ionic microgels: an overview. <i>Soft Matter</i> , 2019 , 15, 1108-1119	3.6	55
123	Connecting Elasticity and Effective Interactions of Neutral Microgels: The Validity of the Hertzian Model. <i>Macromolecules</i> , 2019 , 52, 4895-4906	5.5	31
122	A Colloid Approach to Self-Assembling Antibodies. <i>Molecular Pharmaceutics</i> , 2019 , 16, 2394-2404	5.6	23
121	Microgels Adsorbed at Liquid-Liquid Interfaces: A Joint Numerical and Experimental Study. <i>ACS Nano</i> , 2019 , 13, 4548-4559	16.7	52
120	The microscopic role of deformation in the dynamics of soft colloids. <i>Nature Physics</i> , 2019 , 15, 683-688	16.2	52
119	Water-Polymer Coupling Induces a Dynamical Transition in Microgels. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 870-876	6.4	19
118	Patchy Particle Models to Understand Protein Phase Behavior. <i>Methods in Molecular Biology</i> , 2019 , 2039, 187-208	1.4	5

117	Multi-particle collision dynamics for a coarse-grained model of soft colloids. <i>Journal of Chemical Physics</i> , 2019 , 151, 074902	3.9	2
116	Numerical insights on ionic microgels: structure and swelling behaviour. <i>Soft Matter</i> , 2019 , 15, 8113-8128	3.6	8
115	Rheological investigation of gels formed by competing interactions: A numerical study. <i>Journal of Chemical Physics</i> , 2019 , 150, 024905	3.9	6
114	Internal structure and swelling behaviour of in silico microgel particles. <i>Journal of Physics Condensed Matter</i> , 2018 , 30, 044001	1.8	23
113	On the molecular origin of the cooperative coil-to-globule transition of poly(N-isopropylacrylamide) in water. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 9997-10010	3.6	66
112	Crystal-to-Crystal Transition of Ultrasoft Colloids under Shear. <i>Physical Review Letters</i> , 2018 , 120, 078003	3.4	21
111	On the effect of the thermostat in non-equilibrium molecular dynamics simulations. <i>European Physical Journal E</i> , 2018 , 41, 80	1.5	16
110	Different scenarios of dynamic coupling in glassy colloidal mixtures. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 18630-18638	3.6	10
109	A new look at effective interactions between microgel particles. <i>Nature Communications</i> , 2018 , 9, 5039	17.4	62
108	Evidence of a low-temperature dynamical transition in concentrated microgels. <i>Science Advances</i> , 2018 , 4, eaat5895	14.3	21
107	Modelling realistic microgels in an explicit solvent. <i>Scientific Reports</i> , 2018 , 8, 14426	4.9	20
106	Equilibrium gels of limited valence colloids. <i>Current Opinion in Colloid and Interface Science</i> , 2017 , 30, 90-96	7.6	35
105	Synthesis of Microgel Particles. <i>Macromolecules</i> , 2017 , 50, 8777-8786	5.5	76
104	Effective potentials induced by self-assembly of patchy particles. <i>Soft Matter</i> , 2017 , 13, 6051-6058	3.6	7
103	Anomalous dynamics of intruders in a crowded environment of mobile obstacles. <i>Nature Communications</i> , 2016 , 7, 11133	17.4	88
102	Gravitational collapse of depletion-induced colloidal gels. <i>Soft Matter</i> , 2016 , 12, 4300-8	3.6	26
101	Discontinuous change from thermally- to geometrically-dominated effective interactions in colloidal solutions. <i>Soft Matter</i> , 2016 , 12, 9649-9656	3.6	2
100	Dynamical and structural signatures of the glass transition in emulsions. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2016 , 2016, 094003	1.9	15

99	The physics of protein self-assembly. <i>Current Opinion in Colloid and Interface Science</i> , 2016 , 22, 73-79	7.6	125
98	Dynamic phase diagram of soft nanocolloids. <i>Nanoscale</i> , 2015 , 7, 13924-34	7.7	37
97	Structural and microscopic relaxations in a colloidal glass. <i>Soft Matter</i> , 2015 , 11, 466-71	3.6	32
96	How soft repulsion enhances the depletion mechanism. <i>Soft Matter</i> , 2015 , 11, 692-700	3.6	26
95	On polydispersity and the hard sphere glass transition. <i>Soft Matter</i> , 2015 , 11, 324-30	3.6	42
94	Validity of the Stokes-Einstein Relation in Soft Colloids up to the Glass Transition. <i>Physical Review Letters</i> , 2015 , 115, 128302	7.4	30
93	How fluorescent labelling alters the solution behaviour of proteins. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 31177-87	3.6	33
92	Casimir-like forces at the percolation transition. <i>Nature Communications</i> , 2014 , 5, 3267	17.4	27
91	Glass-glass transition during aging of a colloidal clay. <i>Nature Communications</i> , 2014 , 5, 4049	17.4	84
90	Avalanches mediate crystallization in a hard-sphere glass. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 75-80	11.5	45
89	Effective interactions between soft-repulsive colloids: experiments, theory, and simulations. <i>Journal of Chemical Physics</i> , 2014 , 140, 094901	3.9	78
88	Exposing a dynamical signature of the freezing transition through the sound propagation gap. <i>Nature Communications</i> , 2014 , 5, 5503	17.4	8
87	Multiple glass singularities and isodynamics in a core-softened model for glass-forming systems. <i>Physical Review Letters</i> , 2014 , 113, 258302	7.4	16
86	Fluid-solid transitions in soft-repulsive colloids. <i>Soft Matter</i> , 2013 , 9, 3000	3.6	109
85	Unveiling the complex glassy dynamics of square shoulder systems: simulations and theory. <i>Journal of Chemical Physics</i> , 2013 , 138, 134501	3.9	12
84	Observation of empty liquids and equilibrium gels in a colloidal clay 2013 ,		4
83	How properties of interacting depletant particles control aggregation of hard-sphere colloids. <i>Soft Matter</i> , 2012 , 8, 1991-1996	3.6	21
82	From compact to fractal crystalline clusters in concentrated systems of monodisperse hard spheres. <i>Soft Matter</i> , 2012 , 8, 4960	3.6	24

81	Characterizing concentrated, multiply scattering, and actively driven fluorescent systems with confocal differential dynamic microscopy. <i>Physical Review Letters</i> , 2012 , 108, 218103	7.4	71
80	Tuning effective interactions close to the critical point in colloidal suspensions. <i>Journal of Chemical Physics</i> , 2012 , 137, 084903	3.9	13
79	Reversible gels of patchy particles. <i>Current Opinion in Solid State and Materials Science</i> , 2011 , 15, 246-253	12	86
78	Crystallization and aging in hard-sphere glasses. <i>Journal of Physics Condensed Matter</i> , 2011 , 23, 319501	1.8	2
77	Observation of empty liquids and equilibrium gels in a colloidal clay. <i>Nature Materials</i> , 2011 , 10, 56-60	27	272
76	Crystallization mechanism of hard sphere glasses. <i>Physical Review Letters</i> , 2011 , 106, 215701	7.4	59
75	Chain dynamics in nonentangled polymer melts: A first-principle approach for the role of intramolecular barriers. <i>Soft Matter</i> , 2011 , 7, 1364	3.6	9
74	A fresh look at the Laponite phase diagram. <i>Soft Matter</i> , 2011 , 7, 1268	3.6	288
73	From caging to Rouse dynamics in polymer melts with intramolecular barriers: a critical test of the mode coupling theory. <i>Journal of Chemical Physics</i> , 2011 , 134, 024523	3.9	13
72	Cluster-driven dynamical arrest in concentrated lysozyme solutions. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 7227-37	3.4	99
71	Crystallization and aging in hard-sphere glasses. <i>Journal of Physics Condensed Matter</i> , 2011 , 23, 194117	1.8	14
70	Ultrasoft colloid-polymer mixtures: structure and phase diagram. <i>Physical Review Letters</i> , 2011 , 106, 228301	7.4	39
69	Silica through the eyes of colloidal models--when glass is a gel. <i>Journal of Physics Condensed Matter</i> , 2011 , 23, 285101	1.8	7
68	Competing interactions in arrested States of colloidal clays. <i>Physical Review Letters</i> , 2010 , 104, 085701	7.4	71
67	A spherical model with directional interactions: II. Dynamics and landscape properties. <i>Journal of Physics Condensed Matter</i> , 2010 , 22, 104110	1.8	5
66	Disconnected glass-glass transitions and diffusion anomalies in a model with two repulsive length scales. <i>Physical Review Letters</i> , 2010 , 104, 145701	7.4	22
65	Modeling the crossover between chemically and diffusion-controlled irreversible aggregation in a small-functionality gel-forming system. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 3769-75	3.4	24
64	Colloidal glasses and gels: The interplay of bonding and caging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 15203-8	11.5	127

63	Correlation between structure and rheology of a model colloidal glass. <i>Journal of Chemical Physics</i> , 2009 , 131, 144903	3.9	19
62	Multiple Glass Transitions in Star Polymer Mixtures: Insights from Theory and Simulations. <i>Macromolecules</i> , 2009 , 42, 423-434	5.5	42
61	Hard spheres: crystallization and glass formation. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009 , 367, 4993-5011	3	155
60	Connecting irreversible to reversible aggregation: time and temperature. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 1233-6	3.4	31
59	A parameter-free description of the kinetics of formation of loop-less branched structures and gels. <i>Soft Matter</i> , 2009 ,	3.6	6
58	Crystallization of hard-sphere glasses. <i>Physical Review Letters</i> , 2009 , 103, 135704	7.4	160
57	Colloidal systems with competing interactions: from an arrested repulsive cluster phase to a gel. <i>Soft Matter</i> , 2009 , 5, 2390	3.6	132
56	Gelation of particles with short-range attraction. <i>Nature</i> , 2008 , 453, 499-503	50.4	700
55	Asymmetric caging in soft colloidal mixtures. <i>Nature Materials</i> , 2008 , 7, 780-4	27	104
54	Theoretical and numerical study of the phase diagram of patchy colloids: ordered and disordered patch arrangements. <i>Journal of Chemical Physics</i> , 2008 , 128, 144504	3.9	134
53	A molecular dynamics study of chemical gelation in a patchy particle model. <i>Soft Matter</i> , 2008 , 4, 1173-1177	3.7	37
52	Gelation as arrested phase separation in short-ranged attractive colloid-polymer mixtures. <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 494242	1.8	65
51	Numerical investigation of glassy dynamics in low-density systems. <i>Physical Review Letters</i> , 2008 , 100, 195701	7.4	26
50	Interaction between charged colloids in a low dielectric constant solvent. <i>Europhysics Letters</i> , 2008 , 81, 59901	1.6	4
49	Rheological transitions in asymmetric colloidal star mixtures. <i>Rheologica Acta</i> , 2007 , 46, 611-619	2.3	18
48	Viscoelasticity and Stokes-Einstein relation in repulsive and attractive colloidal glasses. <i>Journal of Chemical Physics</i> , 2007 , 127, 144906	3.9	32
47	Asymmetric poly(ethylene-alt-propylene)-poly(ethylene oxide) micelles: a system with starlike morphology and interactions. <i>Physical Review E</i> , 2007 , 76, 041503	2.4	34
46	A spherical model with directional interactions. I. Static properties. <i>Journal of Chemical Physics</i> , 2007 , 127, 174501	3.9	19

45	Interaction between charged colloids in a low dielectric constant solvent. <i>Europhysics Letters</i> , 2007 , 78, 38002	1.6	17
44	Colloidal gels: equilibrium and non-equilibrium routes. <i>Journal of Physics Condensed Matter</i> , 2007 , 19, 323101	1.8	447
43	Modeling equilibrium clusters in lysozyme solutions. <i>Europhysics Letters</i> , 2007 , 77, 48004	1.6	103
42	Mode-coupling theory predictions for a limited valency attractive square well model. <i>Journal of Physics Condensed Matter</i> , 2006 , 18, S2373-S2382	1.8	9
41	Phase diagram of patchy colloids: towards empty liquids. <i>Physical Review Letters</i> , 2006 , 97, 168301	7.4	432
40	Gel to glass transition in simulation of a valence-limited colloidal system. <i>Journal of Chemical Physics</i> , 2006 , 124, 124908	3.9	80
39	Non-Gaussian energy landscape of a simple model for strong network-forming liquids: Accurate evaluation of the configurational entropy. <i>Journal of Chemical Physics</i> , 2006 , 124, 204509	3.9	20
38	Small-angle X-ray scattering and light scattering on lysozyme and sodium glycocholate micelles. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 23857-69	3.4	30
37	One-dimensional cluster growth and branching gels in colloidal systems with short-range depletion attraction and screened electrostatic repulsion. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 21942-53	3.4	169
36	Viscoelastic properties of attractive and repulsive colloidal glasses. <i>Journal of Physics Condensed Matter</i> , 2005 , 17, L271-7	1.8	24
35	Energy landscape of a simple model for strong liquids. <i>Physical Review Letters</i> , 2005 , 95, 157802	7.4	38
34	Routes to colloidal gel formation. <i>Computer Physics Communications</i> , 2005 , 169, 166-171	4.2	48
33	Model for reversible colloidal gelation. <i>Physical Review Letters</i> , 2005 , 94, 218301	7.4	122
32	Static and dynamic anomalies in a repulsive spherical ramp liquid: theory and simulation. <i>Physical Review E</i> , 2005 , 72, 021501	2.4	94
31	Starlike micelles with starlike interactions: a quantitative evaluation of structure factors and phase diagram. <i>Physical Review Letters</i> , 2005 , 94, 195504	7.4	63
30	Tailoring the flow of soft glasses by soft additives. <i>Physical Review Letters</i> , 2005 , 95, 268301	7.4	65
29	Dynamical arrest in dense short-ranged attractive colloids. <i>Journal of Physics Condensed Matter</i> , 2004 , 16, S3791-S3806	1.8	13
28	Numerical study of the glass-glass transition in short-ranged attractive colloids. <i>Journal of Physics Condensed Matter</i> , 2004 , 16, S4849-S4860	1.8	20

27	Aging in short-ranged attractive colloids: a numerical study. <i>Journal of Chemical Physics</i> , 2004 , 120, 8824-30	3.9	28
26	Is there a reentrant glass in binary mixtures?. <i>Physical Review Letters</i> , 2004 , 92, 225703	7.4	53
25	Effect of bond lifetime on the dynamics of a short-range attractive colloidal system. <i>Physical Review E</i> , 2004 , 70, 041401	2.4	40
24	Equilibrium cluster phases and low-density arrested disordered states: the role of short-range attraction and long-range repulsion. <i>Physical Review Letters</i> , 2004 , 93, 055701	7.4	405
23	Ground-state clusters for short-range attractive and long-range repulsive potentials. <i>Langmuir</i> , 2004 , 20, 10756-63	4	177
22	Short-ranged attractive colloids: What is the gel state? 2004 , 181-194		12
21	Static and dynamical correlation functions behaviour in attractive colloidal systems from theory and simulation. <i>Journal of Physics Condensed Matter</i> , 2003 , 15, S367-S374	1.8	23
20	Activated bond-breaking processes preempt the observation of a sharp glass-glass transition in dense short-ranged attractive colloids. <i>Physical Review Letters</i> , 2003 , 91, 108301	7.4	39
19	The nature of the colloidal 'glass' transition. <i>Faraday Discussions</i> , 2003 , 123, 13-26; discussion 75-97, 419-26	3.6	21
18	Evidence of a higher-order singularity in dense short-ranged attractive colloids. <i>Physical Review Letters</i> , 2003 , 91, 268301	7.4	101
17	Structural arrest in dense star-polymer solutions. <i>Physical Review Letters</i> , 2003 , 90, 238301	7.4	102
16	Universality behaviour in ideal dynamical arrest transitions of a lattice glass model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002 , 316, 115-134	3.3	14
15	Slowed relaxational dynamics beyond the fluctuation-dissipation theorem. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002 , 307, 15-26	3.3	9
14	Competition between crystallization and glassification for particles with short-ranged attraction. Possible applications to protein crystallization. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002 , 314, 539-547	3.3	14
13	Phase equilibria and glass transition in colloidal systems with short-ranged attractive interactions: application to protein crystallization. <i>Physical Review E</i> , 2002 , 65, 031407	2.4	154
12	Evidence for an unusual dynamical-arrest scenario in short-ranged colloidal systems. <i>Physical Review E</i> , 2002 , 65, 050802	2.4	94
11	Confirmation of anomalous dynamical arrest in attractive colloids: a molecular dynamics study. <i>Physical Review E</i> , 2002 , 66, 041402	2.4	132
10	Dynamics of supercooled liquids: density fluctuations and mode coupling theory. <i>Journal of Physics Condensed Matter</i> , 2002 , 14, 2413-2437	1.8	19

9	Ideal glass in attractive systems with different potentials. <i>Journal of Physics Condensed Matter</i> , 2002 , 14, 2223-2235	1.8	8
8	The vibrational motions of particle gels. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2001 , 183-185, 327-334	5.1	1
7	Gaussian density fluctuations and mode coupling theory for supercooled liquids. <i>Europhysics Letters</i> , 2001 , 55, 157-163	1.6	48
6	Mechanical properties of a model of attractive colloidal solutions. <i>Physical Review E</i> , 2001 , 63, 031501	2.4	100
5	Higher-order glass-transition singularities in colloidal systems with attractive interactions. <i>Physical Review E</i> , 2001 , 63, 011401	2.4	343
4	Mode-coupling theory of colloids with short-range attractions. <i>Journal of Physics Condensed Matter</i> , 2001 , 13, 9113-9126	1.8	19
3	Are particle gels glasses? 2001 , 221-225		1
2	Kinetic Arrest Originating in Competition Between Attractive Interaction and Packing Force. <i>Journal of Statistical Physics</i> , 2000 , 100, 363-376	1.5	29
1	Binary mixtures of sticky spheres using Percus-Yevick theory 2000 , 371-375		6