

Roberto Cerbino

List of Publications by Year in descending order

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78
papers

3,573
citations

136740

32
h-index

143772

57
g-index

84
all docs

84
docs citations

84
times ranked

3138
citing authors

#	ARTICLE	IF	CITATIONS
1	Differential dynamic microscopy for the characterization of polymer systems. <i>Journal of Polymer Science</i> , 2022, 60, 1079-1089.	2.0	18
2	Bistability of Dielectrically Anisotropic Nematic Crystals and the Adaptation of Endothelial Collectives to Stress Fields. <i>Advanced Science</i> , 2022, , 2102148.	5.6	3
3	Multiscale heterogeneous dynamics in two-dimensional glassy colloids. <i>Journal of Chemical Physics</i> , 2022, 156, 164906.	1.2	2
4	Non-invasive measurement of nuclear relative stiffness from quantitative analysis of microscopy data. <i>European Physical Journal E</i> , 2022, 45, .	0.7	2
5	Deformation profiles and microscopic dynamics of complex fluids during oscillatory shear experiments. <i>Soft Matter</i> , 2021, 17, 8553-8566.	1.2	8
6	Disentangling collective motion and local rearrangements in 2D and 3D cell assemblies. <i>Soft Matter</i> , 2021, 17, 3550-3559.	1.2	12
7	Probing roto-translational diffusion of small anisotropic colloidal particles with a bright-field microscope. <i>European Physical Journal E</i> , 2021, 44, 61.	0.7	7
8	Hecw controls oogenesis and neuronal homeostasis by promoting the liquid state of ribonucleoprotein particles. <i>Nature Communications</i> , 2021, 12, 5488.	5.8	7
9	Multiple dynamic regimes in a coarsening foam. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 024002.	0.7	9
10	Giant Fluctuations Induced by Thermal Diffusion in Complex Liquids. <i>Microgravity Science and Technology</i> , 2020, 32, 873-887.	0.7	14
11	Emergence of Multiscale Dynamics in Colloidal Gels. <i>Physical Review Letters</i> , 2020, 124, 088005.	2.9	32
12	MicroMotility: State of the art, recent accomplishments and perspectives on the mathematical modeling of bio-motility at microscopic scales. <i>Mathematics in Engineering</i> , 2020, 2, 230-252.	0.5	3
13	European Space Agency experiments on thermodiffusion of fluid mixtures in space. <i>European Physical Journal E</i> , 2019, 42, 86.	0.7	28
14	Unjamming overcomes kinetic and proliferation arrest in terminally differentiated cells and promotes collective motility of carcinoma. <i>Nature Materials</i> , 2019, 18, 1252-1263.	13.3	117
15	Functional transcription promoters at DNA double-strand breaks mediate RNA-driven phase separation of damage-response factors. <i>Nature Cell Biology</i> , 2019, 21, 1286-1299.	4.6	233
16	Quantitative optical microscopy of colloids: The legacy of Jean Perrin. <i>Current Opinion in Colloid and Interface Science</i> , 2018, 34, 47-58.	3.4	19
17	Flocking transitions in confluent tissues. <i>Soft Matter</i> , 2018, 14, 3471-3477.	1.2	114
18	Dark field differential dynamic microscopy enables accurate characterization of the roto-translational dynamics of bacteria and colloidal clusters. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 025901.	0.7	15

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19	Tracking-Free Determination of Single-Cell Displacements and Division Rates in Confluent Monolayers. <i>Frontiers in Physics</i> , 2018, 6, .	1.0	19
20	Endocytic reawakening of motility in jammed epithelia. <i>Nature Materials</i> , 2017, 16, 587-596.	13.3	207
21	Giant fluctuations and structural effects in a flocking epithelium. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 384003.	1.3	37
22	Perspective: Differential dynamic microscopy extracts multi-scale activity in complex fluids and biological systems. <i>Journal of Chemical Physics</i> , 2017, 147, 110901.	1.2	61
23	Active diffusion and advection in <i>Drosophila</i> oocytes result from the interplay of actin and microtubules. <i>Nature Communications</i> , 2017, 8, 1520.	5.8	49
24	Image windowing mitigates edge effects in Differential Dynamic Microscopy. <i>European Physical Journal E</i> , 2017, 40, 97.	0.7	21
25	Differential dynamic microscopy microrheology of soft materials: A tracking-free determination of the frequency-dependent loss and storage moduli. <i>Physical Review Materials</i> , 2017, 1, .	0.9	42
26	Simultaneous characterization of rotational and translational diffusion of optically anisotropic particles by optical microscopy. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 195201.	0.7	26
27	The NEUF-DIX space project - Non-Equilibrium Fluctuations during Diffusion in complex liquids. <i>European Physical Journal E</i> , 2016, 39, 119.	0.7	28
28	Shadowgraph Analysis of Non-equilibrium Fluctuations for Measuring Transport Properties in Microgravity in the GRADFLEX Experiment. <i>Microgravity Science and Technology</i> , 2016, 28, 467-475.	0.7	30
29	Structure and dynamics of concentration fluctuations in a non-equilibrium dense colloidal suspension. <i>Soft Matter</i> , 2016, 12, 6588-6600.	1.2	31
30	Re-entrant DNA gels. <i>Nature Communications</i> , 2016, 7, 13191.	5.8	69
31	Equilibrium and non-equilibrium concentration fluctuations in a critical binary mixture. <i>European Physical Journal E</i> , 2016, 39, 103.	0.7	23
32	Dynamic scaling for the growth of non-equilibrium fluctuations during thermophoretic diffusion in microgravity. <i>Scientific Reports</i> , 2015, 5, 14486.	1.6	28
33	Multi-spot, label-free immunoassay on reflectionless glass. <i>Biosensors and Bioelectronics</i> , 2015, 74, 539-545.	5.3	23
34	Equilibrium gels of trivalent DNA-nanostars: Effect of the ionic strength on the dynamics. <i>European Physical Journal E</i> , 2015, 38, 64.	0.7	29
35	Equilibrium gels of low-valence DNA nanostars: a colloidal model for strong glass formers. <i>Soft Matter</i> , 2015, 11, 3132-3138.	1.2	53
36	Portable, Multispot, Label-Free Immunoassay on a Phantom Perfluorinated Plastic. <i>Lecture Notes in Electrical Engineering</i> , 2015, , 13-17.	0.3	0

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37	A fast and simple label-free immunoassay based on a smartphone. <i>Biosensors and Bioelectronics</i> , 2014, 58, 395-402.	5.3	86
38	Viscoelasticity of nematic liquid crystals at a glance. <i>Soft Matter</i> , 2014, 10, 3938-3949.	1.2	42
39	Digital Fourier microscopy for soft matter dynamics. <i>Journal of Optics (United Kingdom)</i> , 2014, 16, 083001.	1.0	84
40	Nematic Liquid Crystals Embedded in Cubic Microlattices: Memory Effects and Bistable Pixels. <i>Advanced Functional Materials</i> , 2013, 23, 3990-3994.	7.8	21
41	Phase behavior and critical activated dynamics of limited-valence DNA nanostars. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 15633-15637.	3.3	156
42	Multispot, label-free biodetection at a phantom plastic-water interface. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 9350-9355.	3.3	35
43	Liquid Crystals: Nematic Liquid Crystals Embedded in Cubic Microlattices: Memory Effects and Bistable Pixels (<i>Adv. Funct. Mater.</i> 32/2013). <i>Advanced Functional Materials</i> , 2013, 23, 4060-4060.	7.8	2
44	Gradient-driven fluctuations in microgravity. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 284134.	0.7	7
45	Two-Dimensional X-Ray Beam Phase Sensing. <i>Physical Review Letters</i> , 2012, 108, 158102.	2.9	158
46	Characterizing Concentrated, Multiply Scattering, and Actively Driven Fluorescent Systems with Confocal Differential Dynamic Microscopy. <i>Physical Review Letters</i> , 2012, 108, 218103.	2.9	90
47	Liquid crystal self-assembly of random-sequence DNA oligomers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 1110-1115.	3.3	69
48	Bistability of nematic liquid crystals confined in 3D scaffold produced by two-photon polymerization. , 2012, , .		0
49	Effect of configuration of the microchannels fabricated by femtosecond laser micromachining on topological defects in confined liquid crystals. <i>Proceedings of SPIE</i> , 2012, , .	0.8	1
50	How Archer Fish Achieve a Powerful Impact: Hydrodynamic Instability of a Pulsed Jet in <i>Toxotes jaculatrix</i> . <i>PLoS ONE</i> , 2012, 7, e47867.	1.1	26
51	Giant thermophoresis of poly(N-isopropylacrylamide) microgel particles. <i>Soft Matter</i> , 2012, 8, 5857.	1.2	36
52	Thermal Fluctuations in a Layer of Liquid $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:msub} \langle \text{mml:mi} \rangle \text{CS} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$ Subjected to Temperature Gradients with and without the Influence of Gravity. <i>Physical Review Letters</i> , 2011, 106, 244502.	2.9	37
53	Topological defects of nematic liquid crystals confined in porous networks. <i>Soft Matter</i> , 2011, 7, 10945.	1.2	33
54	Non-equilibrium fluctuations on earth and in micro-gravity. The GRADFLEX experiment. <i>Journal of Physics: Conference Series</i> , 2011, 327, 012023.	0.3	0

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55	Kinetics of colloidal fractal aggregation by differential dynamic microscopy. <i>European Physical Journal: Special Topics</i> , 2011, 199, 139-148.	1.2	29
56	Fractal fronts of diffusion in microgravity. <i>Nature Communications</i> , 2011, 2, 290.	5.8	90
57	DNA-Based Soft Phases. <i>Topics in Current Chemistry</i> , 2011, 318, 225-279.	4.0	29
58	Exploring soft matter with x-rays: from the discovery of the DNA structure to the challenges of free electron lasers. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 323102.	0.7	6
59	Noise in laser speckle correlation and imaging techniques. <i>Optics Express</i> , 2010, 18, 14519.	1.7	55
60	Right-handed double-helix ultrashort DNA yields chiral nematic phases with both right- and left-handed director twist. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 17497-17502.	3.3	91
61	Near-field scattering techniques: Novel instrumentation and results from time and spatially resolved investigations of soft matter systems. <i>Current Opinion in Colloid and Interface Science</i> , 2009, 14, 416-425.	3.4	52
62	Bistable Heat Transfer in a Nanofluid. <i>Physical Review Letters</i> , 2009, 102, 104503.	2.9	77
63	Scattering information obtained by optical microscopy: Differential dynamic microscopy and beyond. <i>Physical Review E</i> , 2009, 80, 031403.	0.8	121
64	X-ray-scattering information obtained from near-field speckle. <i>Nature Physics</i> , 2008, 4, 238-243.	6.5	105
65	Differential Dynamic Microscopy: Probing Wave Vector Dependent Dynamics with a Microscope. <i>Physical Review Letters</i> , 2008, 100, 188102.	2.9	266
66	Optical generation of Voronoi diagram. <i>Optics Express</i> , 2008, 16, 4819.	1.7	3
67	Mutual Voronoi Tessellation in Spoke Pattern Convection. <i>Physical Review Letters</i> , 2008, 100, 188104.	2.9	12
68	Soft X-ray Fresnel-like diffraction from thin films edges by an ultrafast laser plasma source. , 2007, , .		0
69	New trends in light scattering. <i>Current Opinion in Colloid and Interface Science</i> , 2007, 12, 50-57.	3.4	81
70	Correlations of light in the deep Fresnel region: An extended Van Cittert and Zernike theorem. <i>Physical Review A</i> , 2007, 75, .	1.0	46
71	THERMOPHORETIC CONVECTION OF SILICA NANOPARTICLES. , 2007, , .		0
72	Gradient-driven fluctuations experiment: fluid fluctuations in microgravity. <i>Applied Optics</i> , 2006, 45, 2155.	2.1	34

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73	Fluctuations in Diffusion Processes in Microgravity. Annals of the New York Academy of Sciences, 2006, 1077, 351-364.	1.8	5
74	Scaling Behavior for the Onset of Convection in a Colloidal Suspension. Physical Review Letters, 2005, 94, 064501.	2.9	48
75	Transient oscillations in Soret-driven convection in a colloidal suspension. European Physical Journal E, 2004, 15, 305-309.	0.7	25
76	Fast-onset Soret-driven convection in a colloidal suspension heated from above. Philosophical Magazine, 2003, 83, 2023-2031.	0.7	20
77	Soret driven convection in a colloidal solution heated from above at very large solutal Rayleigh number. Physical Review E, 2002, 66, 055301.	0.8	52
78	Reciprocal Space Study of Brownian Yet Non-Gaussian Diffusion of Small Tracers in a Hard-Sphere Glass. Frontiers in Physics, 0, 10, .	1.0	5