Andrea Maria Chiariello

List of Publications by Year
in descending order

47 papers	2,029 citations	394421 19 h-index	302126 39 g-index
58 all docs	58 docs citations	58 times ranked	1881 citing authors

#	Article	IF	Citations
1	Physical mechanisms of chromatin spatial organization. FEBS Journal, 2022, 289, 1180-1190.	4.7	10
2	A Polymer Physics Model to Dissect Genome Organization in Healthy and Pathological Phenotypes. Methods in Molecular Biology, 2022, 2301, 307-316.	0.9	1
3	A novel complex genomic rearrangement affecting the KCNJ2 regulatory region causes a variant of Cooks syndrome. Human Genetics, 2022, 141, 217-227.	3.8	1
4	8-oxodG accumulation within super-enhancers marks fragile CTCF-mediated chromatin loops. Nucleic Acids Research, 2022, 50, 3292-3306.	14.5	11
5	Polymer physics reveals a combinatorial code linking 3D chromatin architecture to 1D chromatin states. Cell Reports, 2022, 38, 110601.	6.4	18
6	Further Delineation of Duplications of ARX Locus Detected in Male Patients with Varying Degrees of Intellectual Disability. International Journal of Molecular Sciences, 2022, 23, 3084.	4.1	1
7	The Physics of DNA Folding: Polymer Models and Phase-Separation. Polymers, 2022, 14, 1918.	4.5	5
8	3DGenBench: a web-server to benchmark computational models for 3D Genomics. Nucleic Acids Research, 2022, 50, W4-W12.	14.5	10
9	Loop-extrusion and polymer phase-separation can co-exist at the single-molecule level to shape chromatin folding. Nature Communications, 2022, 13, .	12.8	35
10	Analysis of Genome Architecture Mapping Data with a Machine Learning and Polymer-Physics-Based Tool. Lecture Notes in Computer Science, 2021, , 321-332.	1.3	0
11	CTCF mediates dosage- and sequence-context-dependent transcriptional insulation by forming local chromatin domains. Nature Genetics, 2021, 53, 1064-1074.	21.4	90
12	Comparison of the Hi-C, GAM and SPRITE methods using polymer models of chromatin. Nature Methods, 2021, 18, 482-490.	19.0	39
13	Polymer models are a versatile tool to study chromatin 3D organization. Biochemical Society Transactions, 2021, 49, 1675-1684.	3.4	8
14	Dynamic and equilibrium properties of finite-size polymer models of chromosome folding. Physical Review E, 2021, 104, 054402.	2.1	7
15	Cell-type specialization is encoded by specific chromatin topologies. Nature, 2021, 599, 684-691.	27.8	112
16	Inference of chromosome 3D structures from GAM data by a physics computational approach. Methods, 2020, 181-182, 70-79.	3.8	12
17	Higher-order Chromosome Structures Investigated by Polymer Physics in Cellular Morphogenesis and Differentiation. Journal of Molecular Biology, 2020, 432, 701-711.	4.2	10
18	A modern challenge of polymer physics: Novel ways to study, interpret, and reconstruct chromatin structure. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2020, 10, e1454.	14.6	14

#	Article	IF	Citations
19	The Interplay between Phase Separation and Gene-Enhancer Communication: A Theoretical Study. Biophysical Journal, 2020, 119, 873-883.	0.5	12
20	Divergent Transcription of the Nkx2-5 Locus Generates Two Enhancer RNAs with Opposing Functions. IScience, 2020, 23, 101539.	4.1	11
21	Polymer physics indicates chromatin folding variability across single-cells results from state degeneracy in phase separation. Nature Communications, 2020, 11, 3289.	12.8	79
22	A Dynamic Folded Hairpin Conformation Is Associated with Î±-Globin Activation in Erythroid Cells. Cell Reports, 2020, 30, 2125-2135.e5.	6.4	38
23	Computational approaches from polymer physics to investigate chromatin folding. Current Opinion in Cell Biology, 2020, 64, 10-17.	5.4	31
24	Hybrid Machine Learning and Polymer Physics Approach to Investigate 3D Chromatin Structure. Lecture Notes in Computer Science, 2020, , 572-582.	1.3	1
25	Efficient computational implementation of polymer physics models to explore chromatin structure. International Journal of Parallel, Emergent and Distributed Systems, 2019, , 1-12.	1.0	6
26	Modeling Single-Molecule Conformations of the HoxD Region in Mouse Embryonic Stem and Cortical Neuronal Cells. Cell Reports, 2019, 28, 1574-1583.e4.	6.4	21
27	Preformed chromatin topology assists transcriptional robustness of <i>Shh</i> during limb development. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12390-12399.	7.1	131
28	Release of paused RNA polymerase II at specific loci favors DNA double-strand-break formation and promotes cancer translocations. Nature Genetics, 2019, 51, 1011-1023.	21.4	73
29	Understanding Chromatin Structure: Efficient Computational Implementation of Polymer Physics Models. Lecture Notes in Computer Science, 2019, , 680-691.	1.3	1
30	Models of polymer physics for the architecture of the cell nucleus. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2019, 11, e1444.	6.6	14
31	The Strings and Binders Switch Model of Chromatin. , 2019, , 57-68.		0
32	Molecular Dynamics simulations of the Strings and Binders Switch model of chromatin. Methods, 2018, 142, 81-88.	3.8	27
33	Polymer physics predicts the effects of structural variants on chromatin architecture. Nature Genetics, 2018, 50, 662-667.	21.4	179
34	Dynamic 3D chromatin architecture contributes to enhancer specificity and limb morphogenesis. Nature Genetics, 2018, 50, 1463-1473.	21.4	147
35	Single-allele chromatin interactions identify regulatory hubs in dynamic compartmentalized domains. Nature Genetics, 2018, 50, 1744-1751.	21.4	150
36	Predicting chromatin architecture from models of polymer physics. Chromosome Research, 2017, 25, 25-34.	2.2	42

#	Article	IF	Citations
37	Active and poised promoter states drive folding of the extended HoxB locus in mouse embryonic stem cells. Nature Structural and Molecular Biology, 2017, 24, 515-524.	8.2	80
38	The scaling features of the 3D organization of chromosomes are highlighted by a transformation Ã la Kadanoff of Hi-C data. Europhysics Letters, 2017, 120, 40004.	2.0	6
39	A Polymer Physics Investigation of the Architecture of the Murine Orthologue of the 7q11.23 Human Locus. Frontiers in Neuroscience, 2017, 11, 559.	2.8	11
40	Structure of the human chromosome interaction network. PLoS ONE, 2017, 12, e0188201.	2.5	27
41	Polymer physics of chromosome large-scale 3D organisation. Scientific Reports, 2016, 6, 29775.	3.3	160
42	Polymer Physics of the Large-Scale Structure of Chromatin. Methods in Molecular Biology, 2016, 1480, 201-206.	0.9	4
43	Polymer models of the hierarchical folding of the Hox-B chromosomal locus. Physical Review E, 2016, 94, 042402.	2.1	22
44	Hierarchical folding and reorganization of chromosomes are linked to transcriptional changesÂin cellular differentiation. Molecular Systems Biology, 2015, 11, 852.	7.2	305
45	Polymer models of the organization of chromosomes in the nucleus of cells. Modern Physics Letters B, 2015, 29, 1530003.	1.9	8
46	Polymer models of chromatin organization. Frontiers in Genetics, 2013, 4, 113.	2.3	15
47	Connecting the Dots: PHF13 and Cohesin Promote Polymer-Polymer Phase Separation of Chromatin Into Chromosomes. SSRN Electronic Journal, 0, , .	0.4	0