Anton Arkhipov

List of Publications by Year
in descending order

44 papers	5,250 citations	186265 28 h-index	345221 36 g-index
59 all docs	59 docs citations	59 times ranked	5839 citing authors

#	Article	IF	Citations
1	Conformational Coupling across the Plasma Membrane in Activation of the EGF Receptor. Cell, 2013, 152, 543-556.	28.9	423
2	Architecture and Membrane Interactions of the EGF Receptor. Cell, 2013, 152, 557-569.	28.9	417
3	Classification of electrophysiological and morphological neuron types in the mouse visual cortex. Nature Neuroscience, 2019, 22, 1182-1195.	14.8	333
4	Oncogenic Mutations Counteract Intrinsic Disorder in the EGFR Kinase and Promote Receptor Dimerization. Cell, 2012, 149, 860-870.	28.9	304
5	Integrated Morphoelectric and Transcriptomic Classification of Cortical GABAergic Cells. Cell, 2020, 183, 935-953.e19.	28.9	290
6	Survey of spiking in the mouse visual system reveals functional hierarchy. Nature, 2021, 592, 86-92.	27.8	284
7	Imaging the Migration Pathways for O2, CO, NO, and Xe Inside Myoglobin. Biophysical Journal, 2006, 91, 1844-1857.	0.5	258
8	Four-Scale Description of Membrane Sculpting by BAR Domains. Biophysical Journal, 2008, 95, 2806-2821.	0.5	251
9	Stability and Dynamics of Virus Capsids Described by Coarse-Grained Modeling. Structure, 2006, 14, 1767-1777.	3.3	245
10	Coarse Grained ProteinẫLipid Model with Application to Lipoprotein Particlesâ€. Journal of Physical Chemistry B, 2006, 110, 3674-3684.	2.6	244
11	Transitions to catalytically inactive conformations in EGFR kinase. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7270-7275.	7.1	186
12	Systematic Integration of Structural and Functional Data into Multi-scale Models of Mouse Primary Visual Cortex. Neuron, 2020, 106, 388-403.e18.	8.1	163
13	Human neocortical expansion involves glutamatergic neuron diversification. Nature, 2021, 598, 151-158.	27.8	160
14	EGFR oligomerization organizes kinase-active dimers into competent signalling platforms. Nature Communications, 2016, 7, 13307.	12.8	146
15	Simulations of Membrane Tubulation by Lattices of Amphiphysin N-BAR Domains. Structure, 2009, 17, 882-892.	3.3	131
16	Local connectivity and synaptic dynamics in mouse and human neocortex. Science, 2022, 375, eabj5861.	12.6	124
17	Systematic generation of biophysically detailed models for diverse cortical neuron types. Nature Communications, 2018, 9, 710.	12.8	123
18	Assembly of lipoprotein particles revealed by coarse-grained molecular dynamics simulations. Journal of Structural Biology, 2007, 157, 579-592.	2.8	115

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19	Membrane-Bending Mechanism of Amphiphysin N-BAR Domains. Biophysical Journal, 2009, 97, 2727-2735.	0.5	101
20	Elucidating the Mechanism behind Irreversible Deformation of Viral Capsids. Biophysical Journal, 2009, 97, 2061-2069.	0.5	94
21	Coarse-Grained Molecular Dynamics Simulations of a Rotating Bacterial Flagellum. Biophysical Journal, 2006, 91, 4589-4597.	0.5	93
22	Inferring cortical function in the mouse visual system through large-scale systems neuroscience. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7337-7344.	7.1	82
23	Visual physiology of the layer 4 cortical circuit in silico. PLoS Computational Biology, 2018, 14, e1006535.	3.2	75
24	The role of molecular modeling in bionanotechnology. Physical Biology, 2006, 3, S40-S53.	1.8	68
25	Her2 activation mechanism reflects evolutionary preservation of asymmetric ectodomain dimers in the human EGFR family. ELife, 2013, 2, e00708.	6.0	62
26	Assembly of Lipids and Proteins into Lipoprotein Particles. Journal of Physical Chemistry B, 2007, 111, 11095-11104.	2.6	60
27	BioNet: A Python interface to NEURON for modeling large-scale networks. PLoS ONE, 2018, 13, e0201630.	2.5	58
28	Membrane Interaction of Bound Ligands Contributes to the Negative Binding Cooperativity of the EGF Receptor. PLoS Computational Biology, 2014, 10, e1003742.	3.2	39
29	Brain Modeling ToolKit: An open source software suite for multiscale modeling of brain circuits. PLoS Computational Biology, 2020, 16, e1008386.	3.2	34
30	The SONATA data format for efficient description of large-scale network models. PLoS Computational Biology, 2020, 16, e1007696.	3.2	32
31	Consistent cross-modal identification of cortical neurons with coupled autoencoders. Nature Computational Science, 2021, 1, 120-127.	8.0	29
32	Continuous Fluorescence Microphotolysis and Correlation Spectroscopy Using 4Pi Microscopy. Biophysical Journal, 2007, 93, 4006-4017.	0.5	20
33	Chapter 11 Molecular Modeling of the Structural Properties and Formation of High-Density Lipoprotein Particles. Current Topics in Membranes, 2008, 60, 313-342.	0.9	8
34	Limits for reduction of effective focal volume in multiple-beam light microscopy. Optics Express, 2009, 17, 2861.	3.4	8
35	The SONATA Data Format for Efficient Description of Large-Scale Network Models. SSRN Electronic Journal, 0, , .	0.4	6
36	Systematic Integration of Structural and Functional Data into Multi-Scale Models of Mouse Primary Visual Cortex. SSRN Electronic Journal, 0, , .	0.4	6

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37	Application of Residue-Based and Shape-Based Coarse-Graining to Biomolecular Simulations. , 2008, , 299-315.		5
38	Measuring Stimulus-Evoked Neurophysiological Differentiation in Distinct Populations of Neurons in Mouse Visual Cortex. ENeuro, 2022, 9, ENEURO.0280-21.2021.	1.9	5
39	Multi-scale Simulations of Membrane Sculpting by N-BAR Domains. RSC Biomolecular Sciences, 2010, , 146-176.	0.4	1
40	Mobility Analysis in Living Yeast using 4Pi CFM. Biophysical Journal, 2010, 98, 580a.	0.5	0
41	Simulation of Membrane Sculpting by EFC F-BAR Domain Lattices. Biophysical Journal, 2010, 98, 632a.	0.5	0
42	Computer Simulation of Membrane Tubulation by EFC F-BAR Domain Lattices. Biophysical Journal, 2012, 102, 237a.	0.5	0
43	How Synaptotagmin I, N-BAR and F-BAR Domains Generate Membrane Curvature. Biophysical Journal, 2015, 108, 555a.	0.5	0
44	Oligomerization of the Epidermal Growth Factor Receptor Organizes Kinase-Active Dimers into Competent Signaling Platforms. Biophysical Journal, 2017, 112, 26a-27a.	0.5	0