

# Albert Compte

## List of Publications by Year in descending order

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67  
papers

5,229  
citations

126708

33  
h-index

128067

60  
g-index

89  
all docs

89  
docs citations

89  
times ranked

4829  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cellular and Network Mechanisms of Slow Oscillatory Activity (<1 Hz) and Wave Propagations in a Cortical Network Model. <i>Journal of Neurophysiology</i> , 2003, 89, 2707-2725.	0.9	486
2	Theory of the electrochemical impedance of anomalous diffusion. <i>Journal of Electroanalytical Chemistry</i> , 2001, 499, 112-120.	1.9	408
3	Bump attractor dynamics in prefrontal cortex explains behavioral precision in spatial working memory. <i>Nature Neuroscience</i> , 2014, 17, 431-439.	7.1	352
4	The generalized Cattaneo equation for the description of anomalous transport processes. <i>Journal of Physics A</i> , 1997, 30, 7277-7289.	1.6	326
5	Mechanism for top-down control of working memory capacity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 6802-6807.	3.3	305
6	Stochastic foundations of fractional dynamics. <i>Physical Review E</i> , 1996, 53, 4191-4193.	0.8	262
7	Temporally Irregular Mnemonic Persistent Activity in Prefrontal Neurons of Monkeys During a Delayed Response Task. <i>Journal of Neurophysiology</i> , 2003, 90, 3441-3454.	0.9	235
8	Anomalous transport effects in the impedance of porous film electrodes. <i>Electrochemistry Communications</i> , 1999, 1, 429-435.	2.3	195
9	Inhibitory Modulation of Cortical Up States. <i>Journal of Neurophysiology</i> , 2010, 104, 1314-1324.	0.9	164
10	Interplay between persistent activity and activity-silent dynamics in the prefrontal cortex underlies serial biases in working memory. <i>Nature Neuroscience</i> , 2020, 23, 1016-1024.	7.1	154
11	Non-equilibrium thermodynamics and anomalous diffusion. <i>Journal of Physics A</i> , 1996, 29, 4321-4329.	1.6	150
12	Bistable, Irregular Firing and Population Oscillations in a Modular Attractor Memory Network. <i>PLoS Computational Biology</i> , 2010, 6, e1000803.	1.5	149
13	Sensory integration dynamics in a hierarchical network explains choice probabilities in cortical area MT. <i>Nature Communications</i> , 2015, 6, 6177.	5.8	145
14	The dynamical stability of reverberatory neural circuits. <i>Biological Cybernetics</i> , 2002, 87, 471-481.	0.6	130
15	Spontaneous High-Frequency (10–80 Hz) Oscillations during Up States in the Cerebral Cortex<i>In Vitro</i>. <i>Journal of Neuroscience</i> , 2008, 28, 13828-13844.	1.7	122
16	UP-DOWN cortical dynamics reflect state transitions in a bistable network. <i>ELife</i> , 2017, 6, .	2.8	114
17	An Integrated Microcircuit Model of Attentional Processing in the Neocortex. <i>Journal of Neuroscience</i> , 2007, 27, 8486-8495.	1.7	103
18	Temperature Modulation of Slow and Fast Cortical Rhythms. <i>Journal of Neurophysiology</i> , 2010, 103, 1253-1261.	0.9	85

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19	Computational and in vitro studies of persistent activity: Edging towards cellular and synaptic mechanisms of working memory. <i>Neuroscience</i> , 2006, 139, 135-151.	1.1	79
20	Continuous time random walks on moving fluids. <i>Physical Review E</i> , 1997, 55, 6821-6831.	0.8	69
21	Reconciling Coherent Oscillation with Modulation of Irregular Spiking Activity in Selective Attention: Gamma-Range Synchronization between Sensory and Executive Cortical Areas. <i>Journal of Neuroscience</i> , 2010, 30, 2856-2870.	1.7	66
22	Neural circuit basis of visuo-spatial working memory precision: a computational and behavioral study. <i>Journal of Neurophysiology</i> , 2015, 114, 1806-1818.	0.9	65
23	Tuning Curve Shift by Attention Modulation in Cortical Neurons: a Computational Study of its Mechanisms. <i>Cerebral Cortex</i> , 2006, 16, 761-778.	1.6	60
24	Fractional Dynamics in Random Velocity Fields. <i>Physical Review Letters</i> , 1998, 81, 3140-3143.	2.9	51
25	Anomalous diffusion in linear shear flows. <i>Journal of Physics A</i> , 1997, 30, 1023-1030.	1.6	50
26	Generalized Diffusion-Advection Schemes and Dispersive Sedimentation: A Fractional Approach. <i>Journal of Physical Chemistry B</i> , 2000, 104, 3858-3865.	1.2	48
27	Neural Integrator Models. , 2009, , 165-178.		47
28	Transitions between Multiband Oscillatory Patterns Characterize Memory-Guided Perceptual Decisions in Prefrontal Circuits. <i>Journal of Neuroscience</i> , 2016, 36, 489-505.	1.7	47
29	Sleep disorders in anti-NMDAR encephalitis. <i>Neurology</i> , 2020, 95, e671-e684.	1.5	47
30	Serotonin Regulates Performance Nonmonotonically in a Spatial Working Memory Network. <i>Cerebral Cortex</i> , 2014, 24, 2449-2463.	1.6	44
31	Integrated Mechanisms of Anticipation and Rate-of-Change Computations in Cortical Circuits. <i>PLoS Computational Biology</i> , 2007, 3, e82.	1.5	42
32	Computational disease modeling – fact or fiction?. <i>BMC Systems Biology</i> , 2009, 3, 56.	3.0	41
33	A Computational Model of Major Depression: the Role of Glutamate Dysfunction on Cingulo-Frontal Network Dynamics. <i>Cerebral Cortex</i> , 2017, 27, bhv249.	1.6	40
34	Stochastic foundation of normal and anomalous Cattaneo-type transport. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1999, 268, 454-468.	1.2	39
35	Reduced serial dependence suggests deficits in synaptic potentiation in anti-NMDAR encephalitis and schizophrenia. <i>Nature Communications</i> , 2020, 11, 4250.	5.8	38
36	Rhythmic Spontaneous Activity in the Piriform Cortex. <i>Cerebral Cortex</i> , 2008, 18, 1179-1192.	1.6	36

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37	Biased continuous time random walks between parallel plates. <i>Physical Review E</i> , 1997, 56, 1445-1454.	0.8	33
38	Workflow for generating competing hypothesis from models with parameter uncertainty. <i>Interface Focus</i> , 2011, 1, 438-449.	1.5	33
39	Subgenual anterior cingulate cortex controls sadness-induced modulations of cognitive and emotional network hubs. <i>Scientific Reports</i> , 2018, 8, 8566.	1.6	30
40	Build-up of serial dependence in color working memory. <i>Scientific Reports</i> , 2020, 10, 10959.	1.6	27
41	Temporal Properties of Posterior Parietal Neuron Discharges During Working Memory and Passive Viewing. <i>Journal of Neurophysiology</i> , 2007, 97, 2254-2266.	0.9	26
42	Wavefronts in bistable hyperbolic reaction-diffusion systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 260, 90-98.	1.2	22
43	A Computational Model for Spatial Working Memory Deficits in Schizophrenia. <i>Pharmacopsychiatry</i> , 2012, 45, S49-S56.	1.7	22
44	Serotonergic modulation of spatial working memory: predictions from a computational network model. <i>Frontiers in Integrative Neuroscience</i> , 2013, 7, 71.	1.0	21
45	Pinging the brain with visual impulses reveals electrically active, not activity-silent, working memories. <i>PLoS Biology</i> , 2021, 19, e3001436.	2.6	20
46	Stimulus Dependence of Barrel Cortex Directional Selectivity. <i>PLoS ONE</i> , 2006, 1, e137.	1.1	19
47	Selective detection of abrupt input changes by integration of spike-frequency adaptation and synaptic depression in a computational network model. <i>Journal of Physiology (Paris)</i> , 2006, 100, 1-15.	2.1	19
48	Trade-off between Capacity and Precision in Visuospatial Working Memory. <i>Journal of Cognitive Neuroscience</i> , 2014, 26, 211-222.	1.1	19
49	Localization in one-dimensional random random walks. <i>Journal of Physics A</i> , 1998, 31, 6113-6121.	1.6	18
50	Oscillations in the bistable regime of neuronal networks. <i>Physical Review E</i> , 2016, 94, 012410.	0.8	18
51	Nucleus basalis stimulation enhances working memory by stabilizing stimulus representations in primate prefrontal cortical activity. <i>Cell Reports</i> , 2021, 36, 109469.	2.9	12
52	Towards biologically constrained attractor models of schizophrenia. <i>Current Opinion in Neurobiology</i> , 2021, 70, 171-181.	2.0	11
53	Spatial Suppression and Sensitivity for Motion in Schizophrenia. <i>Schizophrenia Bulletin Open</i> , 2020, 1, .	0.9	9
54	StimuliApp: Psychophysical tests on mobile devices. <i>Behavior Research Methods</i> , 2021, 53, 1301-1307.	2.3	7

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55	Validation of motion perception of briefly displayed images using a tablet. Scientific Reports, 2018, 8, 16056.	1.6	6
56	LÃ©vy statistics in Taylor dispersion. Physical Review E, 1997, 56, 5445-5449.	0.8	5
57	The EASI model: A first integrative computational approximation to the natural history of COPD. PLoS ONE, 2017, 12, e0185502.	1.1	4
58	Serotonergic Modulation of Cognition in Prefrontal Cortical Circuits in Major Depression. , 2018, , 27-46.		4
59	Across-Area Synchronization Supports Feature Integration in a Biophysical Network Model of Working Memory. Frontiers in Neural Circuits, 2021, 15, 716965.	1.4	4
60	Structural Statistical Properties of the Connectivity Could Underlie the Difference in Activity Propagation Velocities in Visual and Olfactory Cortices. Lecture Notes in Computer Science, 2005, , 133-142.	1.0	2
61	Irregularity of emergent network activity in the local circuit. BMC Neuroscience, 2009, 10, .	0.8	0
62	A computational and behavioral study of the precision of visuo-spatial working-memory for several items. BMC Neuroscience, 2011, 12, .	0.8	0
63	A biophysical neural network model for visual working memory that accounts for memory binding errors. BMC Neuroscience, 2015, 16, .	0.8	0
64	Integrated Mechanisms of Anticipation and Rate-of-Change Computations in Cortical Circuits. PLoS Computational Biology, 2005, preprint, e82.	1.5	0
65	Slow Oscillations: Models. , 2014, , 1-4.		0
66	Slow Oscillations: Models. , 2015, , 2720-2723.		0
67	Slow Oscillations: Models. , 2022, , 3147-3150.		0