Gustavo Deco

List of Publications by Year in descending order

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422 papers	25,973 citations	11651 70 h-index	12946 131 g-index
515 all docs	515 docs citations	515 times ranked	15553 citing authors

#	Article	IF	Citations
1	Emerging concepts for the dynamical organization of resting-state activity in the brain. Nature Reviews Neuroscience, 2011, 12, 43-56.	10.2	1,497
2	The Dynamic Brain: From Spiking Neurons to Neural Masses and Cortical Fields. PLoS Computational Biology, 2008, 4, e1000092.	3.2	832
3	Key role of coupling, delay, and noise in resting brain fluctuations. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10302-10307.	7.1	681
4	Ongoing Cortical Activity at Rest: Criticality, Multistability, and Ghost Attractors. Journal of Neuroscience, 2012, 32, 3366-3375.	3.6	605
5	Can sliding-window correlations reveal dynamic functional connectivity in resting-state fMRI?. NeuroImage, 2016, 127, 242-256.	4.2	530
6	Rethinking segregation and integration: contributions of whole-brain modelling. Nature Reviews Neuroscience, 2015, 16, 430-439.	10.2	483
7	Resting-State Functional Connectivity Emerges from Structurally and Dynamically Shaped Slow Linear Fluctuations. Journal of Neuroscience, 2013, 33, 11239-11252.	3.6	476
8	Role of local network oscillations in resting-state functional connectivity. NeuroImage, 2011, 57, 130-139.	4.2	467
9	Functional connectivity dynamics: Modeling the switching behavior of the resting state. NeuroImage, 2015, 105, 525-535.	4.2	463
10	The dynamics of resting fluctuations in the brain: metastability and its dynamical cortical core. Scientific Reports, 2017, 7, 3095.	3.3	356
11	Great Expectations: Using Whole-Brain Computational Connectomics for Understanding Neuropsychiatric Disorders. Neuron, 2014, 84, 892-905.	8.1	345
12	Computational models of schizophrenia and dopamine modulation in the prefrontal cortex. Nature Reviews Neuroscience, 2008, 9, 696-709.	10.2	333
13	Resting brains never rest: computational insights into potential cognitive architectures. Trends in Neurosciences, 2013, 36, 268-274.	8.6	321
14	Functional connectivity dynamically evolves on multiple time-scales over a static structural connectome: Models and mechanisms. NeuroImage, 2017, 160, 84-96.	4.2	319
15	Exploring the network dynamics underlying brain activity during rest. Progress in Neurobiology, 2014, 114, 102-131.	5.7	309
16	How Local Excitation-Inhibition Ratio Impacts the Whole Brain Dynamics. Journal of Neuroscience, 2014, 34, 7886-7898.	3.6	303
17	Human consciousness is supported by dynamic complex patterns of brain signal coordination. Science Advances, 2019, 5, eaat7603.	10.3	296
18	Attention, short-term memory, and action selection: A unifying theory. Progress in Neurobiology, 2005, 76, 236-256.	5.7	293

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19	Exploring mechanisms of spontaneous functional connectivity in MEG: How delayed network interactions lead to structured amplitude envelopes of band-pass filtered oscillations. NeuroImage, 2014, 90, 423-435.	4.2	287
20	The Dynamical Balance of the Brain at Rest. Neuroscientist, 2011, 17, 107-123.	3.5	282
21	A Neurodynamical cortical model of visual attention and invariant object recognition. Vision Research, 2004, 44, 621-642.	1.4	265
22	Cognitive performance in healthy older adults relates to spontaneous switching between states of functional connectivity during rest. Scientific Reports, 2017, 7, 5135.	3.3	257
23	Stochastic dynamics as a principle of brain function. Progress in Neurobiology, 2009, 88, 1-16.	5.7	248
24	Resting-State Temporal Synchronization Networks Emerge from Connectivity Topology and Heterogeneity. PLoS Computational Biology, 2015, 11, e1004100.	3.2	216
25	Neurodynamics of Biased Competition and Cooperation for Attention: A Model With Spiking Neurons. Journal of Neurophysiology, 2005, 94, 295-313.	1.8	215
26	Inversion of a large-scale circuit model reveals a cortical hierarchy in the dynamic resting human brain. Science Advances, 2019, 5, eaat7854.	10.3	192
27	An Information-Theoretic Approach to Neural Computing. Perspectives in Neural Computing, 1996, , .	0.1	188
28	Metastability and Coherence: Extending the Communication through Coherence Hypothesis Using A Whole-Brain Computational Perspective. Trends in Neurosciences, 2016, 39, 125-135.	8.6	187
29	Dynamic functional connectivity reveals altered variability in functional connectivity among patients with major depressive disorder. Human Brain Mapping, 2016, 37, 2918-2930.	3.6	186
30	Attention and working memory: a dynamical model of neuronal activity in the prefrontal cortex. European Journal of Neuroscience, 2003, 18, 2374-2390.	2.6	176
31	Neuronal Discharges and Gamma Oscillations Explicitly Reflect Visual Consciousness in the Lateral Prefrontal Cortex. Neuron, 2012, 74, 924-935.	8.1	176
32	Awakening: Predicting external stimulation to force transitions between different brain states. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 18088-18097.	7.1	176
33	Dynamic coupling of whole-brain neuronal and neurotransmitter systems. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 9566-9576.	7.1	173
34	Modeling the outcome of structural disconnection on resting-state functional connectivity. NeuroImage, 2012, 62, 1342-1353.	4.2	169
35	Single or multiple frequency generators in on-going brain activity: A mechanistic whole-brain model of empirical MEG data. NeuroImage, 2017, 152, 538-550.	4.2	165
36	Whole-Brain Multimodal Neuroimaging Model Using Serotonin Receptor Maps Explains Non-linear Functional Effects of LSD. Current Biology, 2018, 28, 3065-3074.e6.	3.9	159

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37	Oscillations, Phase-of-Firing Coding, and Spike Timing-Dependent Plasticity: An Efficient Learning Scheme. Journal of Neuroscience, 2009, 29, 13484-13493.	3.6	153
38	Dynamical exploration of the repertoire of brain networks at rest is modulated by psilocybin. NeuroImage, 2019, 199, 127-142.	4.2	152
39	Connectome-harmonic decomposition of human brain activity reveals dynamical repertoire re-organization under LSD. Scientific Reports, 2017, 7, 17661.	3.3	150
40	Optimal Information Transfer in the Cortex through Synchronization. PLoS Computational Biology, 2010, 6, e1000934.	3.2	144
41	Decisionâ€making and Weber's law: a neurophysiological model. European Journal of Neuroscience, 2006, 24, 901-916.	2.6	143
42	Theory and Simulation in Neuroscience. Science, 2012, 338, 60-65.	12.6	141
43	Brain States and Transitions: Insights from Computational Neuroscience. Cell Reports, 2020, 32, 108128.	6.4	139
44	Identification of Optimal Structural Connectivity Using Functional Connectivity and Neural Modeling. Journal of Neuroscience, 2014, 34, 7910-7916.	3.6	138
45	A Dynamical Systems Hypothesis of Schizophrenia. PLoS Computational Biology, 2007, 3, e228.	3.2	137
46	Estimation of Directed Effective Connectivity from fMRI Functional Connectivity Hints at Asymmetries of Cortical Connectome. PLoS Computational Biology, 2016, 12, e1004762.	3.2	137
47	Inferring multi-scale neural mechanisms with brain network modelling. ELife, 2018, 7, .	6.0	137
48	Perception and self-organized instability. Frontiers in Computational Neuroscience, 2012, 6, 44.	2.1	133
49	Brain mechanisms for perceptual and reward-related decision-making. Progress in Neurobiology, 2013, 103, 194-213.	5.7	133
50	Neural Coding: Higher-Order Temporal Patterns in the Neurostatistics of Cell Assemblies. Neural Computation, 2000, 12, 2621-2653.	2.2	127
51	Choice, difficulty, and confidence in the brain. NeuroImage, 2010, 53, 694-706.	4.2	127
52	Coherent delta-band oscillations between cortical areas correlate with decision making. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15085-15090.	7.1	127
53	Portraits of communication in neuronal networks. Nature Reviews Neuroscience, 2019, 20, 117-127.	10.2	126
54	Stimulus-dependent variability and noise correlations in cortical MT neurons. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13162-13167.	7.1	121

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55	Whole-Brain Neuronal Activity Displays Crackling Noise Dynamics. Neuron, 2018, 100, 1446-1459.e6.	8.1	118
56	How anatomy shapes dynamics: a semi-analytical study of the brain at rest by a simple spin model. Frontiers in Computational Neuroscience, 2012, 6, 68.	2.1	116
57	Rich club organization supports a diverse set of functional network configurations. NeuroImage, 2014, 96, 174-182.	4.2	115
58	Statistical Independence and Novelty Detection with Information Preserving Nonlinear Maps. Neural Computation, 1996, 8, 260-269.	2.2	113
59	â€œWhatâ€•and â€œWhereâ€•in Visual Working Memory: A Computational Neurodynamical Perspective for Integrating fMRI and Single-Neuron Data. Journal of Cognitive Neuroscience, 2004, 16, 683-701.	2.3	113
60	Two Strategies to Avoid Overfitting in Feedforward Networks. Neural Networks, 1997, 10, 505-516.	5.9	110
61	Neural Network Mechanisms Underlying Stimulus Driven Variability Reduction. PLoS Computational Biology, 2012, 8, e1002395.	3.2	109
62	Decision-Making, Errors, and Confidence in the Brain. Journal of Neurophysiology, 2010, 104, 2359-2374.	1.8	105
63	Synaptic and Spiking Dynamics underlying Reward Reversal in the Orbitofrontal Cortex. Cerebral Cortex, 2004, 15, 15-30.	2.9	102
64	Nonlinear higher-order statistical decorrelation by volume-conserving neural architectures. Neural Networks, 1995, 8, 525-535.	5.9	99
65	The Rediscovery of Slowness: Exploring the Timing of Cognition. Trends in Cognitive Sciences, 2015, 19, 616-628.	7.8	98
66	Neural Plasticity in Human Brain Connectivity: The Effects of Long Term Deep Brain Stimulation of the Subthalamic Nucleus in Parkinsonâ€™s Disease. PLoS ONE, 2014, 9, e86496.	2.5	95
67	Understanding principles of integration and segregation using whole-brain computational connectomics: implications for neuropsychiatric disorders. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160283.	3.4	95
68	Large-scale Neural Model for Visual Attention: Integration of Experimental Single-cell and fMRI Data. Cerebral Cortex, 2002, 12, 339-348.	2.9	94
69	Genetic influences on hub connectivity of the human connectome. Nature Communications, 2021, 12, 4237.	12.8	92
70	Hierarchy of Information Processing in the Brain: A Novel â€˜Intrinsic Ignitionâ€™ Framework. Neuron, 2017, 94, 961-968.	8.1	91
71	Increased Stability and Breakdown of Brain Effective Connectivity During Slow-Wave Sleep: Mechanistic Insights from Whole-Brain Computational Modelling. Scientific Reports, 2017, 7, 4634.	3.3	90
72	Spontaneous cortical activity is transiently poised close to criticality. PLoS Computational Biology, 2017, 13, e1005543.	3.2	88

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73	Functional complexity emerging from anatomical constraints in the brain: the significance of network modularity and rich-clubs. Scientific Reports, 2016, 6, 38424.	3.3	87
74	Do Bilinguals Automatically Activate Their Native Language When They Are Not Using It?. Cognitive Science, 2017, 41, 1629-1644.	1.7	87
75	Hippocampal Sharp-Wave Ripples Influence Selective Activation of the Default Mode Network. Current Biology, 2016, 26, 686-691.	3.9	86
76	Spontaneous Brain Activity Predicts Learning Ability of Foreign Sounds. Journal of Neuroscience, 2013, 33, 9295-9305.	3.6	85
77	Time-Resolved Resting-State Functional Magnetic Resonance Imaging Analysis: Current Status, Challenges, and New Directions. Brain Connectivity, 2017, 7, 465-481.	1.7	84
78	Perturbation of whole-brain dynamics in silico reveals mechanistic differences between brain states. NeuroImage, 2018, 169, 46-56.	4.2	83
79	Top-down selective visual attention: A neurodynamical approach. Visual Cognition, 2001, 8, 118-139.	1.6	82
80	Bottom up modeling of the connectome: Linking structure and function in the resting brain and their changes in aging. NeuroImage, 2013, 80, 318-329.	4.2	81
81	Computational significance of transient dynamics in cortical networks. European Journal of Neuroscience, 2008, 27, 217-227.	2.6	80
82	Neural Variability in Premotor Cortex Is Modulated by Trial History and Predicts Behavioral Performance. Neuron, 2013, 78, 249-255.	8.1	80
83	Uncovering the underlying mechanisms and whole-brain dynamics of deep brain stimulation for Parkinsonâ€™s disease. Scientific Reports, 2017, 7, 9882.	3.3	79
84	Decreased integration and information capacity in stroke measured by whole brain models of resting state activity. Brain, 2017, 140, 1068-1085.	7.6	77
85	Microbiota alterations in proline metabolism impact depression. Cell Metabolism, 2022, 34, 681-701.e10.	16.2	77
86	Task-Driven Activity Reduces the Cortical Activity Space of the Brain: Experiment and Whole-Brain Modeling. PLoS Computational Biology, 2015, 11, e1004445.	3.2	76
87	Altered ability to access a clinically relevant control network in patients remitted from major depressive disorder. Human Brain Mapping, 2019, 40, 2771-2786.	3.6	76
88	Primate Amygdala Neurons Simulate Decision Processes of Social Partners. Cell, 2019, 177, 986-998.e15.	28.9	75
89	Ghost Attractors in Spontaneous Brain Activity: Recurrent Excursions Into Functionally-Relevant BOLD Phase-Locking States. Frontiers in Systems Neuroscience, 2020, 14, 20.	2.5	75
90	Attention â€“ oscillations and neuropharmacology. European Journal of Neuroscience, 2009, 30, 347-354.	2.6	74

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91	Harmonic Brain Modes: A Unifying Framework for Linking Space and Time in Brain Dynamics. Neuroscientist, 2018, 24, 277-293.	3.5	74
92	The time course of selective visual attention: theory and experiments. Vision Research, 2002, 42, 2925-2945.	1.4	73
93	A whole-brain computational modeling approach to explain the alterations in resting-state functional connectivity during progression of Alzheimer's disease. NeuroImage: Clinical, 2017, 16, 343-354.	2.7	73
94	Resting-state fMRI correlations: From link-wise unreliability to whole brain stability. NeuroImage, 2017, 157, 250-262.	4.2	73
95	Unsupervised Mutual Information Criterion for Elimination of Overtraining in Supervised Multilayer Networks. Neural Computation, 1995, 7, 86-107.	2.2	72
96	Cholinergic control of cortical network interactions enables feedback-mediated attentional modulation. European Journal of Neuroscience, 2011, 34, 146-157.	2.6	71
97	An attractor hypothesis of obsessiveâ€“compulsive disorder. European Journal of Neuroscience, 2008, 28, 782-793.	2.6	70
98	Confidence-Related Decision Making. Journal of Neurophysiology, 2010, 104, 539-547.	1.8	70
99	The Neuronal Basis of Attention: Rate versus Synchronization Modulation. Journal of Neuroscience, 2008, 28, 7679-7686.	3.6	69
100	Gradual emergence of spontaneous correlated brain activity during fading of general anesthesia in rats: Evidences from fMRI and local field potentials. NeuroImage, 2015, 114, 185-198.	4.2	69
101	Dynamical consequences of regional heterogeneity in the brainâ€™s transcriptional landscape. Science Advances, 2021, 7, .	10.3	69
102	A Fluctuation-Driven Mechanism for Slow Decision Processes in Reverberant Networks. PLoS ONE, 2008, 3, e2534.	2.5	68
103	Human brain connectivity: Clinical applications for clinical neurophysiology. Clinical Neurophysiology, 2020, 131, 1621-1651.	1.5	68
104	A hierarchical neural system with attentional topâ€“down enhancement of the spatial resolution for object recognition. Vision Research, 2000, 40, 2845-2859.	1.4	67
105	Synaptic dynamics and decision making. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 7545-7549.	7.1	67
106	mTOR-related synaptic pathology causes autism spectrum disorder-associated functional hyperconnectivity. Nature Communications, 2021, 12, 6084.	12.8	66
107	Modeling Resting-State Functional Networks When the Cortex Falls Asleep: Local and Global Changes. Cerebral Cortex, 2014, 24, 3180-3194.	2.9	65
108	Weber's Law in Decision Making: Integrating Behavioral Data in Humans with a Neurophysiological Model. Journal of Neuroscience, 2007, 27, 11192-11200.	3.6	63

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109	The role of early visual cortex in visual integration: a neural model of recurrent interaction. European Journal of Neuroscience, 2004, 20, 1089-1100.	2.6	62
110	The encoding of alternatives in multiple-choice decision making. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10308-10313.	7.1	62
111	Multisensory contributions to the perception of vibrotactile events. Behavioural Brain Research, 2009, 196, 145-154.	2.2	62
112	Turbulent-like Dynamics in the Human Brain. Cell Reports, 2020, 33, 108471.	6.4	62
113	Resting-State Functional Connectivity Magnetic Resonance Imaging and Outcome After Acute Stroke. Stroke, 2018, 49, 2353-2360.	2.0	61
114	Revisiting the global workspace orchestrating the hierarchical organization of the human brain. Nature Human Behaviour, 2021, 5, 497-511.	12.0	61
115	Structural connectivity in schizophrenia and its impact on the dynamics of spontaneous functional networks. Chaos, 2013, 23, 046111.	2.5	60
116	Metastability in Senescence. Trends in Cognitive Sciences, 2017, 21, 509-521.	7.8	60
117	Effective connectivity inferred from fMRI transition dynamics during movie viewing points to a balanced reconfiguration of cortical interactions. NeuroImage, 2018, 180, 534-546.	4.2	57
118	A neurodynamical model of visual attention: feedback enhancement of spatial resolution in a hierarchical system. Journal of Computational Neuroscience, 2001, 10, 231-253.	1.0	56
119	Sequential Memory: A Putative Neural and Synaptic Dynamical Mechanism. Journal of Cognitive Neuroscience, 2005, 17, 294-307.	2.3	56
120	Intra-cortical propagation of EEG alpha oscillations. NeuroImage, 2014, 103, 444-453.	4.2	56
121	A unified model of spatial and object attention based on inter-cortical biased competition. Neurocomputing, 2002, 44-46, 775-781.	5.9	54
122	Insights into Brain Architectures from the Homological Scaffolds of Functional Connectivity Networks. Frontiers in Systems Neuroscience, 2016, 10, 85.	2.5	53
123	Cortical rich club regions can organize state-dependent functional network formation by engaging in oscillatory behavior. NeuroImage, 2017, 146, 561-574.	4.2	52
124	Changes of Mind in an Attractor Network of Decision-Making. PLoS Computational Biology, 2011, 7, e1002086.	3.2	51
125	A computational neuroscience approach to schizophrenia and its onset. Neuroscience and Biobehavioral Reviews, 2011, 35, 1644-1653.	6.1	50
126	How delays matter in an oscillatory whole-brain spiking-neuron network model for MEG alpha-rhythms at rest. NeuroImage, 2014, 87, 383-394.	4.2	50

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127	Network dynamics with BrainX3: a large-scale simulation of the human brain network with real-time interaction. Frontiers in Neuroinformatics, 2015, 9, 02.	2.5	48
128	Modeling regional changes in dynamic stability during sleep and wakefulness. NeuroImage, 2020, 215, 116833.	4.2	48
129	Sensory-motor cortices shape functional connectivity dynamics in the human brain. Nature Communications, 2021, 12, 6373.	12.8	48
130	Using the Virtual Brain to Reveal the Role of Oscillations and Plasticity in Shaping Brain's Dynamical Landscape. Brain Connectivity, 2014, 4, 791-811.	1.7	47
131	Novel Intrinsic Ignition Method Measuring Local-Global Integration Characterizes Wakefulness and Deep Sleep. ENeuro, 2017, 4, ENEURO.0106-17.2017.	1.9	47
132	Interactions between higher and lower visual areas improve shape selectivity of higher level neuronsâ€"Explaining crowding phenomena. Brain Research, 2007, 1157, 167-176.	2.2	46
133	Rare long-range cortical connections enhance human information processing. Current Biology, 2021, 31, 4436-4448.e5.	3.9	46
134	Stochastic resonance in the mutual information between input and output spike trains of noisy central neurons. Physica D: Nonlinear Phenomena, 1998, 117, 276-282.	2.8	45
135	Multi-stable perception balances stability and sensitivity. Frontiers in Computational Neuroscience, 2013, 7, 17.	2.1	45
136	Brain songs framework used for discovering the relevant timescale of the human brain. Nature Communications, 2019, 10, 583.	12.8	45
137	Perturbations in dynamical models of whole-brain activity dissociate between the level and stability of consciousness. PLoS Computational Biology, 2021, 17, e1009139.	3.2	45
138	Psychedelic resting-state neuroimaging: A review and perspective on balancing replication and novel analyses. Neuroscience and Biobehavioral Reviews, 2022, 138, 104689.	6.1	45
139	Effective Reduced Diffusion-Models: A Data Driven Approach to the Analysis of Neuronal Dynamics. PLoS Computational Biology, 2009, 5, e1000587.	3.2	44
140	Role of white-matter pathways in coordinating alpha oscillations in resting visual cortex. NeuroImage, 2015, 106, 328-339.	4.2	44
141	Increased methylation at an unexplored glucocorticoid responsive element within exon 1D of NR3C1 gene is related to anxious-depressive disorders and decreased hippocampal connectivity. European Neuropsychopharmacology, 2018, 28, 579-588.	0.7	44
142	The role of fluctuations in perception. Trends in Neurosciences, 2008, 31, 591-598.	8.6	43
143	The human orbitofrontal cortex, vmPFC, and anterior cingulate cortex effective connectome: emotion, memory, and action. Cerebral Cortex, 2022, 33, 330-356.	2.9	43
144	Effective Connectivity in Depression. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 2018, 3, 187-197.	1.5	42

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145	Brain simulation as a cloud service: The Virtual Brain on EBRAINS. NeuroImage, 2022, 251, 118973.	4.2	42
146	Double electron capture of He2+from He at high velocity. Journal of Physics B: Atomic, Molecular and Optical Physics, 1991, 24, L133-L138.	1.5	41
147	The most relevant human brain regions for functional connectivity: Evidence for a dynamical workspace of binding nodes from whole-brain computational modelling. NeuroImage, 2017, 146, 197-210.	4.2	41
148	Common neural signatures of psychedelics: Frequency-specific energy changes and repertoire expansion revealed using connectome-harmonic decomposition. Progress in Brain Research, 2018, 242, 97-120.	1.4	41
149	Extracting orthogonal subject- and condition-specific signatures from fMRI data using whole-brain effective connectivity. NeuroImage, 2018, 178, 238-254.	4.2	41
150	Holding Multiple Items in Short Term Memory: A Neural Mechanism. PLoS ONE, 2013, 8, e61078.	2.5	41
151	Model-based whole-brain effective connectivity to study distributed cognition in health and disease. Network Neuroscience, 2020, 4, 338-373.	2.6	40
152	Loss of consciousness reduces the stability of brain hubs and the heterogeneity of brain dynamics. Communications Biology, 2021, 4, 1037.	4.4	40
153	Computational models of the brain: From structure to function. NeuroImage, 2010, 52, 727-730.	4.2	39
154	The Role of Rhythmic Neural Synchronization in Rest and Task Conditions. Frontiers in Human Neuroscience, 2011, 5, 4.	2.0	39
155	Toward noninvasive brain stimulation 2.0 in Alzheimerâ€™s disease. Ageing Research Reviews, 2022, 75, 101555.	10.9	37
156	Metastable oscillatory modes emerge from synchronization in the brain spacetime connectome. Communications Physics, 2022, 5, .	5.3	37
157	A model of binocular rivalry based on competition in IT. Neurocomputing, 2002, 44-46, 503-507.	5.9	36
158	Attention in natural scenes: Neurophysiological and computational bases. Neural Networks, 2006, 19, 1383-1394.	5.9	36
159	Perceptual detection as a dynamical bistability phenomenon: A neurocomputational correlate of sensation. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 20073-20077.	7.1	36
160	Functional Graph Alterations in Schizophrenia: A Result from a Global Anatomic Decoupling?. Pharmacopsychiatry, 2012, 45, S57-S64.	3.3	36
161	Structure-Function Discrepancy: Inhomogeneity and Delays in Synchronized Neural Networks. PLoS Computational Biology, 2014, 10, e1003736.	3.2	36
162	Task-driven intra- and interarea communications in primate cerebral cortex. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4761-4766.	7.1	36

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163	Network analysis of whole-brain fMRI dynamics: A new framework based on dynamic communicability. NeuroImage, 2019, 201, 116007.	4.2	36
164	Network Bursting Dynamics in Excitatory Cortical Neuron Cultures Results from the Combination of Different Adaptive Mechanism. PLoS ONE, 2013, 8, e75824.	2.5	36
165	Object-based visual neglect: a computational hypothesis. European Journal of Neuroscience, 2002, 16, 1994-2000.	2.6	34
166	Effective connectivity in autism. Autism Research, 2020, 13, 32-44.	3.8	34
167	The Dynamics of Functional Brain Networks Associated With Depressive Symptoms in a Nonclinical Sample. Frontiers in Neural Circuits, 2020, 14, 570583.	2.8	34
168	The human language effective connectome. NeuroImage, 2022, 258, 119352.	4.2	34
169	Resting state networks in empirical and simulated dynamic functional connectivity. NeuroImage, 2017, 159, 388-402.	4.2	33
170	Signature of consciousness in brain-wide synchronization patterns of monkey and human fMRI signals. NeuroImage, 2021, 226, 117470.	4.2	33
171	A neurodynamical model for selective visual attention using oscillators. Neural Networks, 2001, 14, 981-990.	5.9	32
172	Does the regulation of local excitationâ€“inhibition balance aid in recovery of functional connectivity? A computational account. NeuroImage, 2016, 136, 57-67.	4.2	32
173	Feature-based attention in human visual cortex: simulation of fMRI data. NeuroImage, 2004, 21, 36-45.	4.2	31
174	Detecting event-related time-dependent directional couplings. New Journal of Physics, 2006, 8, 6-6.	2.9	31
175	The neuronal dynamics underlying cognitive flexibility in set shifting tasks. Journal of Computational Neuroscience, 2007, 23, 313-331.	1.0	31
176	Linking Entropy at Rest with the Underlying Structural Connectivity in the Healthy and Lesioned Brain. Cerebral Cortex, 2018, 28, 2948-2958.	2.9	31
177	Taskâ€related effective connectivity reveals that the cortical rich club gates cortexâ€wide communication. Human Brain Mapping, 2018, 39, 1246-1262.	3.6	31
178	Characterizing the Dynamical Complexity Underlying Meditation. Frontiers in Systems Neuroscience, 2019, 13, 27.	2.5	31
179	Circuit mechanisms for the chemical modulation of cortex-wide network interactions and behavioral variability. Science Advances, 2021, 7, .	10.3	31
180	Stochastic cortical neurodynamics underlying the memory and cognitive changes in aging. Neurobiology of Learning and Memory, 2015, 118, 150-161.	1.9	30

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181	Distinct criticality of phase and amplitude dynamics in the resting brain. NeuroImage, 2018, 180, 442-447.	4.2	30
182	Dynamics extraction in multivariate biomedical time series. Biological Cybernetics, 1998, 79, 15-27.	1.3	29
183	Cooperation and biased competition model can explain attentional filtering in the prefrontal cortex. European Journal of Neuroscience, 2004, 19, 1969-1977.	2.6	29
184	Synaptic depression and slow oscillatory activity in a biophysical network model of the cerebral cortex. Frontiers in Computational Neuroscience, 2012, 6, 64.	2.1	29
185	Whole-Brain Dynamics in Aging: Disruptions in Functional Connectivity and the Role of the Rich Club. Cerebral Cortex, 2021, 31, 2466-2481.	2.9	29
186	Nonequilibrium brain dynamics as a signature of consciousness. Physical Review E, 2021, 104, 014411.	2.1	29
187	Network Events on Multiple Space and Time Scales in Cultured Neural Networks and in a Stochastic Rate Model. PLoS Computational Biology, 2015, 11, e1004547.	3.2	29
188	The effective connectivity of the human hippocampal memory system. Cerebral Cortex, 2022, 32, 3706-3725.	2.9	28
189	Information Maximization and Independent Component Analysis: Is There a Difference?. Neural Computation, 1998, 10, 2085-2101.	2.2	27
190	Neurons and the synaptic basis of the fMRI signal associated with cognitive flexibility. NeuroImage, 2005, 26, 454-470.	4.2	27
191	Structural connectivity allows for multi-threading during rest: The structure of the cortex leads to efficient alternation between resting state exploratory behavior and default mode processing. NeuroImage, 2012, 60, 2274-2284.	4.2	27
192	Lifespan associated global patterns of coherent neural communication. NeuroImage, 2020, 216, 116824.	4.2	27
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