Olaf Sporns

List of Publications by Year
in descending order

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Version: 2024-02-01

		2426	693
276	80,445	97	253
papers	citations	h-index	g-index

310	310	310	36422
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Complex brain networks: graph theoretical analysis of structural and functional systems. Nature Reviews Neuroscience, 2009, 10, 186-198.	4.9	9,369
2	Complex network measures of brain connectivity: Uses and interpretations. NeuroImage, 2010, 52, 1059-1069.	2.1	9,280
3	Mapping the Structural Core of Human Cerebral Cortex. PLoS Biology, 2008, 6, e159.	2.6	3,556
4	Predicting human resting-state functional connectivity from structural connectivity. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 2035-2040.	3.3	2,791
5	The economy of brain network organization. Nature Reviews Neuroscience, 2012, 13, 336-349.	4.9	2,681
6	The Human Connectome: A Structural Description of the Human Brain. PLoS Computational Biology, 2005, 1, e42.	1.5	2,641
7	Dynamic functional connectivity: Promise, issues, and interpretations. NeuroImage, 2013, 80, 360-378.	2.1	2,358
8	Rich-Club Organization of the Human Connectome. Journal of Neuroscience, 2011, 31, 15775-15786.	1.7	2,010
9	Organization, development and function of complex brain networks. Trends in Cognitive Sciences, 2004, 8, 418-425.	4.0	1,864
10	Network hubs in the human brain. Trends in Cognitive Sciences, 2013, 17, 683-696.	4.0	1,727
11	Network neuroscience. Nature Neuroscience, 2017, 20, 353-364.	7.1	1,679
12	Network structure of cerebral cortex shapes functional connectivity on multiple time scales. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10240-10245.	3.3	1,580
13	A measure for brain complexity: relating functional segregation and integration in the nervous system.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 5033-5037.	3.3	1,355
14	The Small World of the Cerebral Cortex. Neuroinformatics, 2004, 2, 145-162.	1.5	1,173
15	The human connectome: a complex network. Annals of the New York Academy of Sciences, 2011, 1224, 109-125.	1.8	1,134
16	Modular Brain Networks. Annual Review of Psychology, 2016, 67, 613-640.	9.9	1,012
17	Identification and Classification of Hubs in Brain Networks. PLoS ONE, 2007, 2, e1049.	1.1	1,007
18	Network Centrality in the Human Functional Connectome. Cerebral Cortex, 2012, 22, 1862-1875.	1.6	1,003

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19	Network attributes for segregation and integration in the human brain. Current Opinion in Neurobiology, 2013, 23, 162-171.	2.0	809
20	Weight-conserving characterization of complex functional brain networks. NeuroImage, 2011, 56, 2068-2079.	2.1	774
21	Changes in structural and functional connectivity among resting-state networks across the human lifespan. NeuroImage, 2014, 102, 345-357.	2.1	696
22	High-cost, high-capacity backbone for global brain communication. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11372-11377.	3.3	686
23	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.	3.3	681
24	Contributions and challenges for network models in cognitive neuroscience. Nature Neuroscience, 2014, 17, 652-660.	7.1	654
25	Motifs in Brain Networks. PLoS Biology, 2004, 2, e369.	2.6	650
26	Networks of the Brain. , 2010, , .		634
27	Structure and function of complex brain networks. Dialogues in Clinical Neuroscience, 2013, 15, 247-262.	1.8	618
28	Complexity and coherency: integrating information in the brain. Trends in Cognitive Sciences, 1998, 2, 474-484.	4.0	616
29	White matter maturation reshapes structural connectivity in the late developing human brain. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19067-19072.	3.3	597
30	Abnormal Rich Club Organization and Functional Brain Dynamics in Schizophrenia. JAMA Psychiatry, 2013, 70, 783.	6.0	594
31	Communication dynamics in complex brain networks. Nature Reviews Neuroscience, 2018, 19, 17-33.	4.9	593
32	ARTIFICIAL INTELLIGENCE: Autonomous Mental Development by Robots and Animals. Science, 2001, 291, 599-600.	6.0	580
33	Reentry and the Problem of Integrating Multiple Cortical Areas: Simulation of Dynamic Integration in the Visual System. Cerebral Cortex, 1992, 2, 310-335.	1.6	545
34	Can structure predict function in the human brain?. NeuroImage, 2010, 52, 766-776.	2.1	537
35	Resting-brain functional connectivity predicted by analytic measures of network communication. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 833-838.	3.3	530
36	Measures of degeneracy and redundancy in biological networks. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 3257-3262.	3.3	517

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37	Modeling the Impact of Lesions in the Human Brain. PLoS Computational Biology, 2009, 5, e1000408.	1.5	492
38	Role of local network oscillations in resting-state functional connectivity. NeuroImage, 2011, 57, 130-139.	2.1	467
39	Connectivity and complexity: the relationship between neuroanatomy and brain dynamics. Neural Networks, 2000, 13, 909-922.	3.3	453
40	Mapping the human connectome at multiple scales with diffusion spectrum MRI. Journal of Neuroscience Methods, 2012, 203, 386-397.	1.3	413
41	Brain Networks and Cognitive Architectures. Neuron, 2015, 88, 207-219.	3.8	398
42	Solving Bernstein's Problem: A Proposal for the Development of Coordinated Movement by Selection. Child Development, 1993, 64, 960.	1.7	365
43	An Anatomical Substrate for Integration among Functional Networks in Human Cortex. Journal of Neuroscience, 2013, 33, 14489-14500.	1.7	361
44	The human connectome: Origins and challenges. NeuroImage, 2013, 80, 53-61.	2.1	360
45	Graph theory methods: applications in brain networks. Dialogues in Clinical Neuroscience, 2018, 20, 111-121.	1.8	342
46	Human cognition involves the dynamic integration of neural activity and neuromodulatory systems. Nature Neuroscience, 2019, 22, 289-296.	7.1	341
47	Network Analysis of Corticocortical Connections Reveals Ventral and Dorsal Processing Streams in Mouse Visual Cortex. Journal of Neuroscience, 2012, 32, 4386-4399.	1.7	340
48	Dynamical consequences of lesions in cortical networks. Human Brain Mapping, 2008, 29, 802-809.	1.9	330
49	Cooperative and Competitive Spreading Dynamics on the Human Connectome. Neuron, 2015, 86, 1518-1529.	3.8	309
50	Blockade of TNF-Î± rapidly inhibits pain responses in the central nervous system. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3731-3736.	3.3	308
51	Solving Bernstein's Problem: A Proposal for the Development of Coordinated Movement by Selection. Child Development, 1993, 64, 960-981.	1.7	299
52	A cross-disorder connectome landscape of brain dysconnectivity. Nature Reviews Neuroscience, 2019, 20, 435-446.	4.9	298
53	Comparative Connectomics. Trends in Cognitive Sciences, 2016, 20, 345-361.	4.0	289
54	Value-dependent selection in the brain: Simulation in a synthetic neural model. Neuroscience, 1994, 59, 229-243.	1.1	284

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55	Small worlds inside big brains. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 19219-19220.	3.3	268
56	Rich Club Organization of Macaque Cerebral Cortex and Its Role in Network Communication. PLoS ONE, 2012, 7, e46497.	1.1	262
57	A complexity measure for selective matching of signals by the brain.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 3422-3427.	3.3	260
58	Network-Level Structure-Function Relationships in Human Neocortex. Cerebral Cortex, 2016, 26, 3285-3296.	1.6	260
59	Generative models of the human connectome. NeuroImage, 2016, 124, 1054-1064.	2.1	259
60	Mapping Information Flow in Sensorimotor Networks. PLoS Computational Biology, 2006, 2, e144.	1.5	253
61	MR connectomics: Principles and challenges. Journal of Neuroscience Methods, 2010, 194, 34-45.	1.3	251
62	Reentrant signaling among simulated neuronal groups leads to coherency in their oscillatory activity.. Proceedings of the National Academy of Sciences of the United States of America, 1989, 86, 7265-7269.	3.3	243
63	Modeling perceptual grouping and figure-ground segregation by means of active reentrant connections.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 129-133.	3.3	238
64	Dynamic fluctuations coincide with periods of high and low modularity in resting-state functional brain networks. NeuroImage, 2016, 127, 287-297.	2.1	235
65	Structural and Functional Aspects Relating to Cost and Benefit of Rich Club Organization in the Human Cerebral Cortex. Cerebral Cortex, 2014, 24, 2258-2267.	1.6	223
66	Human connectomics. Current Opinion in Neurobiology, 2012, 22, 144-153.	2.0	220
67	Discovering the Human Connectome. , 2012, , .		220
68	Neurobiologically Realistic Determinants of Self-Organized Criticality in Networks of Spiking Neurons. PLoS Computational Biology, 2011, 7, e1002038.	1.5	218
69	Functional Connectivity between Anatomically Unconnected Areas Is Shaped by Collective Network-Level Effects in the Macaque Cortex. Cerebral Cortex, 2012, 22, 1586-1592.	1.6	217
70	From regions to connections and networks: new bridges between brain and behavior. Current Opinion in Neurobiology, 2016, 40, 1-7.	2.0	212
71	Network analysis, complexity, and brain function. Complexity, 2002, 8, 56-60.	0.9	205
72	Measuring information integration. BMC Neuroscience, 2003, 4, 31.	0.8	201

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73	Architecture of the cerebral cortical association connectome underlying cognition. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2093-101.	3.3	199
74	Adolescent Tuning of Association Cortex in Human Structural Brain Networks. Cerebral Cortex, 2018, 28, 281-294.	1.6	195
75	The Non-Random Brain: Efficiency, Economy, and Complex Dynamics. Frontiers in Computational Neuroscience, 2011, 5, 5.	1.2	194
76	Developmental process emerges from extended brainâ€“bodyâ€“behavior networks. Trends in Cognitive Sciences, 2014, 18, 395-403.	4.0	193
77	Human Connectomics across the Life Span. Trends in Cognitive Sciences, 2017, 21, 32-45.	4.0	189
78	Edge-centric functional network representations of human cerebral cortex reveal overlapping system-level architecture. Nature Neuroscience, 2020, 23, 1644-1654.	7.1	167
79	Symbiotic relationship between brain structure and dynamics. BMC Neuroscience, 2009, 10, 55.	0.8	166
80	Towards a new approach to reveal dynamical organization of the brain using topological data analysis. Nature Communications, 2018, 9, 1399.	5.8	164
81	A Dynamic Core Network and Global Efficiency in the Resting Human Brain. Cerebral Cortex, 2016, 26, 4015-4033.	1.6	162
82	From simple graphs to the connectome: Networks in neuroimaging. NeuroImage, 2012, 62, 881-886.	2.1	161
83	Connectomics-Based Analysis of Information Flow in the Drosophila Brain. Current Biology, 2015, 25, 1249-1258.	1.8	160
84	High-amplitude cofluctuations in cortical activity drive functional connectivity. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28393-28401.	3.3	159
85	Small-world connectivity, motif composition, and complexity of fractal neuronal connections. BioSystems, 2006, 85, 55-64.	0.9	156
86	Rich-Club Organization in Effective Connectivity among Cortical Neurons. Journal of Neuroscience, 2016, 36, 670-684.	1.7	155
87	Large-scale DCMs for resting-state fMRI. Network Neuroscience, 2017, 1, 222-241.	1.4	146
88	Synthetic neural modeling applied to a real-world artifact.. Proceedings of the National Academy of Sciences of the United States of America, 1992, 89, 7267-7271.	3.3	144
89	Theoretical neuroanatomy and the connectivity of the cerebral cortex. Behavioural Brain Research, 2002, 135, 69-74.	1.2	141
90	EEG Synchronization to Modulated Auditory Tones in Schizophrenia, Schizoaffective Disorder, and Schizotypal Personality Disorder. American Journal of Psychiatry, 2003, 160, 2238-2240.	4.0	134

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91	Exploring the Morphospace of Communication Efficiency in Complex Networks. PLoS ONE, 2013, 8, e58070.	1.1	131
92	Integration and segregation of large-scale brain networks during short-term task automatization. Nature Communications, 2016, 7, 13217.	5.8	127
93	Disturbed resting state EEG synchronization in bipolar disorder: A graph-theoretic analysis. NeuroImage: Clinical, 2013, 2, 414-423.	1.4	123
94	Mechanisms of Zero-Lag Synchronization in Cortical Motifs. PLoS Computational Biology, 2014, 10, e1003548.	1.5	123
95	Revolution of Alzheimer Precision Neurology. Passageway of Systems Biology and Neurophysiology. Journal of Alzheimer's Disease, 2018, 64, S47-S105.	1.2	122
96	Plasma amyloid Î² 40/42 ratio predicts cerebral amyloidosis in cognitively normal individuals at risk for Alzheimer's disease. Alzheimer's and Dementia, 2019, 15, 764-775.	0.4	122
97	Multiresolution Consensus Clustering in Networks. Scientific Reports, 2018, 8, 3259.	1.6	119
98	Methods for Quantifying the Informational Structure of Sensory and Motor Data. Neuroinformatics, 2005, 3, 243-262.	1.5	117
99	Behavioral constraints in the development of neuronal properties: a cortical model embedded in a real-world device. Cerebral Cortex, 1998, 8, 346-361.	1.6	114
100	Spatiotemporal relationship of embryonic cholinesterases with cell proliferation in chicken brain and eye.. Proceedings of the National Academy of Sciences of the United States of America, 1987, 84, 284-288.	3.3	110
101	Classes of network connectivity and dynamics. Complexity, 2001, 7, 28-38.	0.9	109
102	Making sense of brain network data. Nature Methods, 2013, 10, 491-493.	9.0	107
103	Communication Efficiency and Congestion of Signal Traffic in Large-Scale Brain Networks. PLoS Computational Biology, 2014, 10, e1003427.	1.5	107
104	The human connectome in Alzheimer disease â€" relationship to biomarkers and genetics. Nature Reviews Neurology, 2021, 17, 545-563.	4.9	106
105	Multi-scale community organization of the human structural connectome and its relationship with resting-state functional connectivity. Network Science, 2013, 1, 353-373.	0.8	104
106	Altered Functional and Structural Connectivity Networks in Psychogenic Non-Epileptic Seizures. PLoS ONE, 2013, 8, e63850.	1.1	103
107	Structureâ€"function relationships during segregated and integrated network states of human brain functional connectivity. Brain Structure and Function, 2018, 223, 1091-1106.	1.2	103
108	Behaviorally Based Modeling and Computational Approaches to Neuroscience. Annual Review of Neuroscience, 1993, 16, 597-623.	5.0	99

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109	Mapping higher-order relations between brain structure and function with embedded vector representations of connectomes. Nature Communications, 2018, 9, 2178.	5.8	95
110	Synchronization dynamics and evidence for a repertoire of network states in resting EEG. Frontiers in Computational Neuroscience, 2012, 6, 74.	1.2	92
111	Characterising the complexity of neuronal interactions. Human Brain Mapping, 1995, 3, 302-314.	1.9	91
112	Brain connectivity. Scholarpedia Journal, 2007, 2, 4695.	0.3	91
113	Synthetic neural modeling: the 'Darwin' series of recognition automata. Proceedings of the IEEE, 1990, 78, 1498-1530.	16.4	89
114	Impulsivity and the Modular Organization of Resting-State Neural Networks. Cerebral Cortex, 2013, 23, 1444-1452.	1.6	89
115	A Network Convergence Zone in the Hippocampus. PLoS Computational Biology, 2014, 10, e1003982.	1.5	89
116	The neural cell adhesion molecule (N-CAM) inhibits proliferation in primary cultures of rat astrocytes.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 542-546.	3.3	83
117	Children's intellectual ability is associated with structural network integrity. NeuroImage, 2016, 124, 550-556.	2.1	83
118	A spectrum of routing strategies for brain networks. PLoS Computational Biology, 2019, 15, e1006833.	1.5	83
119	Path ensembles and a tradeoff between communication efficiency and resilience in the human connectome. Brain Structure and Function, 2017, 222, 603-618.	1.2	77
120	Network morphospace. Journal of the Royal Society Interface, 2015, 12, 20140881.	1.5	75
121	Graph Theory Methods for the Analysis of Neural Connectivity Patterns. , 2003, , 171-185.		73
122	The effects of physiologically plausible connectivity structure on local and global dynamics in large scale brain models. Journal of Neuroscience Methods, 2009, 183, 86-94.	1.3	72
123	On nodes and modes in resting state fMRI. NeuroImage, 2014, 99, 533-547.	2.1	72
124	Quantitative Development and Molecular Forms of Acetyl-and Butyrylcholinesterase During Morphogenesis and Synaptogenesis of Chick Brain and Retina. Journal of Neurochemistry, 1987, 49, 175-182.	2.1	71
125	Neuromodulation and plasticity in an autonomous robot. Neural Networks, 2002, 15, 761-774.	3.3	71
126	Weighted Stochastic Block Models of the Human Connectome across the Life Span. Scientific Reports, 2018, 8, 12997.	1.6	70

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127	The open diffusion data derivatives, brain data upcycling via integrated publishing of derivatives and reproducible open cloud services. Scientific Data, 2019, 6, 69.	2.4	69
128	Mapping the Connectome: Multi-Level Analysis of Brain Connectivity. Frontiers in Neuroinformatics, 2012, 6, 14.	1.3	67
129	Disrupted Modular Architecture of Cerebellum in Schizophrenia: A Graph Theoretic Analysis. Schizophrenia Bulletin, 2014, 40, 1216-1226.	2.3	67
130	The Low-Dimensional Neural Architecture of Cognitive Complexity Is Related to Activity in Medial Thalamic Nuclei. Neuron, 2019, 104, 849-855.e3.	3.8	67
131	Temporal stability of functional brain modules associated with human intelligence. Human Brain Mapping, 2020, 41, 362-372.	1.9	64
132	Optimization of seed density in DTI tractography for structural networks. Journal of Neuroscience Methods, 2012, 203, 264-272.	1.3	61
133	Neural cell adhesion molecule (N-CAM) inhibits astrocyte proliferation after injury to different regions of the adult rat brain.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 4323-4327.	3.3	59
134	Organizing principles for the cerebral cortex network of commissural and association connections. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E9692-E9701.	3.3	58
135	Cerebral cartography and connectomics. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20140173.	1.8	56
136	Longer gestation is associated with more efficient brain networks in preadolescent children. NeuroImage, 2014, 100, 619-627.	2.1	55
137	Information Self-Structuring: Key Principle for Learning and Development. , 0, , .		54
138	Dynamic expression of brain functional systems disclosed by fine-scale analysis of edge time series. Network Neuroscience, 2021, 5, 405-433.	1.4	54
139	Prenatal Maternal Cortisol Has Sex-Specific Associations with Child Brain Network Properties. Cerebral Cortex, 2017, 27, 5230-5241.	1.6	53
140	Cognitive complaints in older adults at risk for Alzheimer's disease are associated with altered restingâ€state networks. Alzheimer's and Dementia: Diagnosis, Assessment and Disease Monitoring, 2017, 6, 40-49.	1.2	52
141	Fluctuations between high- and low-modularity topology in time-resolved functional connectivity. NeuroImage, 2018, 180, 406-416.	2.1	52
142	Charting brain growth in tandem with brain templates at school age. Science Bulletin, 2020, 65, 1924-1934.	4.3	52
143	The modular organization of brain cortical connectivity across the human lifespan. NeuroImage, 2020, 218, 116974.	2.1	52
144	Network-Based Asymmetry of the Human Auditory System. Cerebral Cortex, 2018, 28, 2655-2664.	1.6	51

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145	Resting state network modularity along the prodromal late onset Alzheimer's disease continuum. NeuroImage: Clinical, 2019, 22, 101687.	1.4	51
146	Using Pareto optimality to explore the topology and dynamics of the human connectome. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130530.	1.8	50
147	Reconfiguration of Cortical Networks in MDD Uncovered by Multiscale Community Detection with fMRI. Cerebral Cortex, 2018, 28, 1383-1395.	1.6	49
148	Individualized event structure drives individual differences in whole-brain functional connectivity. NeuroImage, 2022, 252, 118993.	2.1	46
149	Plasticity in Value Systems and its Role in Adaptive Behavior. Adaptive Behavior, 2000, 8, 129-148.	1.1	45
150	Differential default mode network trajectories in asymptomatic individuals at risk for Alzheimer's disease. Alzheimer's and Dementia, 2019, 15, 940-950.	0.4	43
151	The Structural and Functional Connectome and Prediction of Risk for Cognitive Impairment in Older Adults. Current Behavioral Neuroscience Reports, 2015, 2, 234-245.	0.6	41
152	Neural modeling and functional neuroimaging. Human Brain Mapping, 1994, 1, 269-283.	1.9	39
153	Neuroinformatics analysis of molecular expression patterns and neuron populations in gray matter regions: The rat BST as a rich exemplar. Brain Research, 2012, 1450, 174-193.	1.1	38
154	Multilevel analysis of classical conditioning in a behaving real world artifact. Robotics and Autonomous Systems, 1995, 16, 247-265.	3.0	37
155	A Large-scale Neurocomputational Model of Task-oriented Behavior Selection and Working Memory in Prefrontal Cortex. Journal of Cognitive Neuroscience, 2006, 18, 242-257.	1.1	37
156	Stochastic resonance at criticality in a network model of the human cortex. Scientific Reports, 2017, 7, 13020.	1.6	37
157	Discordant attributes of structural and functional brain connectivity in a two-layer multiplex network. Scientific Reports, 2019, 9, 2885.	1.6	37
158	Childhood poverty and the organization of structural brain connectome. NeuroImage, 2019, 184, 409-416.	2.1	37
159	Modular origins of high-amplitude cofluctuations in fine-scale functional connectivity dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	37
160	Structural and functional, empirical and modeled connectivity in the cerebral cortex of the rat. NeuroImage, 2017, 159, 170-184.	2.1	36
161	Macroscale intrinsic network architecture of the hypothalamus. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 8018-8027.	3.3	36
162	Correlations between structure and random walk dynamics in directed complex networks. Applied Physics Letters, 2007, 91, 054107.	1.5	35

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163	Towards network substrates of brain disorders. Brain, 2014, 137, 2117-2118.	3.7	35
164	Spatiotemporal Network Markers of Individual Variability in the Human Functional Connectome. Cerebral Cortex, 2018, 28, 2922-2934.	1.6	35
165	Generating dynamical neuroimaging spatiotemporal representations (DyNeuSR) using topological data analysis. Network Neuroscience, 2019, 3, 763-778.	1.4	33
166	Structural Network Topology Revealed by White Matter Tractography in Cannabis Users: A Graph Theoretical Analysis. Brain Connectivity, 2011, 1, 473-483.	0.8	32
167	Robust estimation of fractal measures for characterizing the structural complexity of the human brain: Optimization and reproducibility. NeuroImage, 2013, 83, 646-657.	2.1	32
168	Network communication models narrow the gap between the modular organization of structural and functional brain networks. NeuroImage, 2022, 257, 119323.	2.1	32
169	Correspondence. Trends in Neurosciences, 1997, 20, 291-293.	4.2	31
170	Potassium ion- and nitric oxide-induced exocytosis from populations of hippocampal synapses during synaptic maturation in vitro. Neuroscience, 1997, 80, 1057-1073.	1.1	31
171	The human connectome project for disordered emotional states: Protocol and rationale for a research domain criteria study of brain connectivity in young adult anxiety and depression. NeuroImage, 2020, 214, 116715.	2.1	31
172	Topological analysis of differential effects of ketamine and propofol anaesthesia on brain dynamics. Royal Society Open Science, 2021, 8, 201971.	1.1	31
173	Edges in brain networks: Contributions to models of structure and function. Network Neuroscience, 2022, 6, 1-28.	1.4	30
174	Altered white matter connectivity and network organization in polymicrogyria revealed by individual gyral topology-based analysis. NeuroImage, 2014, 86, 182-193.	2.1	29
175	Optimized connectome architecture for sensory-motor integration. Network Neuroscience, 2017, 1, 415-430.	1.4	29
176	Aging relates to a disproportionately weaker functional architecture of brain networks during rest and task states. NeuroImage, 2020, 209, 116521.	2.1	29
177	Anesthetics fragment hippocampal network activity, alter spine dynamics, and affect memory consolidation. PLoS Biology, 2021, 19, e3001146.	2.6	27
178	Network architecture of the cerebral nuclei (basal ganglia) association and commissural connectome. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5972-E5981.	3.3	26
179	Age differences in specific neural connections within the Default Mode Network underlie theory of mind. NeuroImage, 2019, 191, 269-277.	2.1	26
180	Differential effects of propofol and ketamine on critical brain dynamics. PLoS Computational Biology, 2020, 16, e1008418.	1.5	26

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181	Subsystem organization of axonal connections within and between the right and left cerebral cortex and cerebral nuclei (endbrain). Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6910-E6919.	3.3	25
182	Computational Methods for the Analysis of Brain Connectivity. , 0, , 295-336.		25
183	The diversity and multiplexity of edge communities within and between brain systems. Cell Reports, 2021, 37, 110032.	2.9	25
184	Synthetic approaches to cognitive neuroscience. Behavioral and Brain Sciences, 2000, 23, 548-549.	0.4	24
185	Comparison of fluctuations in global network topology of modeled and empirical brain functional connectivity. PLoS Computational Biology, 2018, 14, e1006497.	1.5	24
186	Aberrant structuralâ€“functional coupling in adult cannabis users. Human Brain Mapping, 2019, 40, 252-261.	1.9	24
187	Subject identification using edge-centric functional connectivity. NeuroImage, 2021, 238, 118204.	2.1	24
188	On the Information Theoretic Implications of Embodiment â€“ Principles and Methods. , 2007, , 76-86.		24
189	Network Structure Implied by Initial Axon Outgrowth in Rodent Cortex: Empirical Measurement and Models. PLoS ONE, 2011, 6, e16113.	1.1	24
190	BDNF-dependent enhancement of exocytosis in cultured cortical neurons requires translation but not transcription1Published on the World Wide Web on 9 November 1998.1. Brain Research, 1999, 815, 140-149.	1.1	23
191	From Connections to Function: The Mouse Brain Connectome Atlas. Cell, 2014, 157, 773-775.	13.5	23
192	Mapping individual differences across brain network structure to function and behavior with connectome embedding. NeuroImage, 2021, 242, 118469.	2.1	23
193	Complex Neural Dynamics. Understanding Complex Systems, 2004, , 197-215.	0.3	23
194	Stimulus Dependent Dynamic Reorganization of the Human Face Processing Network. Cerebral Cortex, 2016, 27, 4823-4834.	1.6	22
195	Alterations in White Matter Microstructure and Connectivity in Young Adults with Alcohol Use Disorder. Alcoholism: Clinical and Experimental Research, 2019, 43, 1170-1179.	1.4	22
196	Hierarchical features of large-scale cortical connectivity. European Physical Journal B, 2005, 48, 567-573.	0.6	21
197	A Large-scale Neurocomputational Model of Task-oriented Behavior Selection and Working Memory in Prefrontal Cortex. Journal of Cognitive Neuroscience, 2006, 18, 242-257.	1.1	21
198	Neurorobotic Models in Neuroscience and Neuroinformatics. Neuroinformatics, 2005, 3, 167-170.	1.5	20

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199	Using confirmatory factor analysis to measure contemporaneous activation of defined neuronal networks in functional magnetic resonance imaging. NeuroImage, 2012, 60, 1982-1991.	2.1	20
200	Network Analysis of Murine Cortical Dynamics Implicates Untuned Neurons in Visual Stimulus Coding. Cell Reports, 2020, 31, 107483.	2.9	20
201	Structural Determinants of Functional Brain Dynamics. Understanding Complex Systems, 2007, , 117-147.	0.3	20
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