Richard F Betzel

List of Publications by Year
in descending order

67 papers	9,591 citations
38 (87888) h-index	65 (106344) g-index
93 all docs	93 docs citations
93 times ranked	7672 citing authors

#	Article	IF	Citations
1	Modular Brain Networks. Annual Review of Psychology, 2016, 67, 613-640.	17.7	1,012
2	Changes in structural and functional connectivity among resting-state networks across the human lifespan. NeuroImage, 2014, 102, 345-357.	4.2	696
3	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.	7.1	530
4	Linking Structure and Function in Macroscale Brain Networks. Trends in Cognitive Sciences, 2020, 24, 302-315.	7.8	477
5	Multi-scale brain networks. NeuroImage, 2017, 160, 73-83.	4.2	445
6	Questions and controversies in the study of time-varying functional connectivity in resting fMRI. Network Neuroscience, 2020, 4, 30-69.	2.6	364
7	Linked dimensions of psychopathology and connectivity in functional brain networks. Nature Communications, 2018, 9, 3003.	12.8	323
8	Cooperative and Competitive Spreading Dynamics on the Human Connectome. Neuron, 2015, 86, 1518-1529.	8.1	309
9	Modular Segregation of Structural Brain Networks Supports the Development of Executive Function in Youth. Current Biology, 2017, 27, 1561-1572.e8.	3.9	305
10	Development of structure–function coupling in human brain networks during youth. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 771-778.	7.1	296
11	Network-Level Structure-Function Relationships in Human Neocortex. Cerebral Cortex, 2016, 26, 3285-3296.	2.9	260
12	Generative models of the human connectome. NeuroImage, 2016, 124, 1054-1064.	4.2	259
13	Dynamic fluctuations coincide with periods of high and low modularity in resting-state functional brain networks. NeuroImage, 2016, 127, 287-297.	4.2	235
14	Cliques and cavities in the human connectome. Journal of Computational Neuroscience, 2018, 44, 115-145.	1.0	215
15	Optimally controlling the human connectome: the role of network topology. Scientific Reports, 2016, 6, 30770.	3.3	190
16	Human Connectomics across the Life Span. Trends in Cognitive Sciences, 2017, 21, 32-45.	7.8	189
17	Specificity and robustness of long-distance connections in weighted, interareal connectomes. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E4880-E4889.	7.1	171
18	Edge-centric functional network representations of human cerebral cortex reveal overlapping system-level architecture. Nature Neuroscience, 2020, 23, 1644-1654.	14.8	167

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19	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.	7.1	159
20	From Maps to Multi-dimensional Network Mechanisms of Mental Disorders. Neuron, 2018, 97, 14-31.	8.1	146
21	Optimal trajectories of brain state transitions. NeuroImage, 2017, 148, 305-317.	4.2	143
22	Positive affect, surprise, and fatigue are correlates of network flexibility. Scientific Reports, 2017, 7, 520.	3.3	140
23	The modular organization of human anatomical brain networks: Accounting for the cost of wiring. Network Neuroscience, 2017, 1, 42-68.	2.6	136
24	Exploring the Morphospace of Communication Efficiency in Complex Networks. PLoS ONE, 2013, 8, e58070.	2.5	131
25	QSIPrep: an integrative platform for preprocessing and reconstructing diffusion MRI data. Nature Methods, 2021, 18, 775-778.	19.0	127
26	Diversity of meso-scale architecture in human and non-human connectomes. Nature Communications, 2018, 9, 346.	12.8	124
27	Distance-dependent consensus thresholds for generating group-representative structural brain networks. Network Neuroscience, 2019, 3, 475-496.	2.6	119
28	Multi-scale community organization of the human structural connectome and its relationship with resting-state functional connectivity. Network Science, 2013, 1, 353-373.	1.0	104
29	Structure–function relationships during segregated and integrated network states of human brain functional connectivity. Brain Structure and Function, 2018, 223, 1091-1106.	2.3	103
30	Modeling and interpreting mesoscale network dynamics. NeuroImage, 2018, 180, 337-349.	4.2	101
31	Structural, geometric and genetic factors predict interregional brain connectivity patterns probed by electrocorticography. Nature Biomedical Engineering, 2019, 3, 902-916.	22.5	94
32	A Network Convergence Zone in the Hippocampus. PLoS Computational Biology, 2014, 10, e1003982.	3.2	89
33	Generative models for network neuroscience: prospects and promise. Journal of the Royal Society Interface, 2017, 14, 20170623.	3.4	89
34	Temporal sequences of brain activity at rest are constrained by white matter structure and modulated by cognitive demands. Communications Biology, 2020, 3, 261.	4.4	88
35	The community structure of functional brain networks exhibits scale-specific patterns of inter- and intra-subject variability. NeuroImage, 2019, 202, 115990.	4.2	85
36	Driving the brain towards creativity and intelligence: A network control theory analysis. Neuropsychologia, 2018, 118, 79-90.	1.6	76

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37	Brain network dynamics during working memory are modulated by dopamine and diminished in schizophrenia. Nature Communications, 2021, 12, 3478.	12.8	69
38	Local structure-function relationships in human brain networks across the lifespan. Nature Communications, 2022, 13, 2053.	12.8	58
39	Dynamic expression of brain functional systems disclosed by fine-scale analysis of edge time series. Network Neuroscience, 2021, 5, 405-433.	2.6	54
40	Fluctuations between high- and low-modularity topology in time-resolved functional connectivity. NeuroImage, 2018, 180, 406-416.	4.2	52
41	The modular organization of brain cortical connectivity across the human lifespan. NeuroImage, 2020, 218, 116974.	4.2	52
42	Network-Based Asymmetry of the Human Auditory System. Cerebral Cortex, 2018, 28, 2655-2664.	2.9	51
43	Optimization of energy state transition trajectory supports the development of executive function during youth. ELife, 2020, 9, .	6.0	47
44	Individualized event structure drives individual differences in whole-brain functional connectivity. NeuroImage, 2022, 252, 118993.	4.2	46
45	Temporal fluctuations in the brain's modular architecture during movie-watching. NeuroImage, 2020, 213, 116687.	4.2	44
46	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, .	7.1	37
47	The flexible brain. Brain, 2016, 139, 2110-2112.	7.6	31
48	Time-resolved structure-function coupling in brain networks. Communications Biology, 2022, 5, .	4.4	31
49	Organizing principles of whole-brain functional connectivity in zebrafish larvae. Network Neuroscience, 2020, 4, 234-256.	2.6	30
50	Edges in brain networks: Contributions to models of structure and function. Network Neuroscience, 2022, 6, 1-28.	2.6	30
51	Optimized connectome architecture for sensory-motor integration. Network Neuroscience, 2017, 1, 415-430.	2.6	29
52	Space-independent community and hub structure of functional brain networks. NeuroImage, 2020, 211, 116612.	4.2	29
53	Benchmarking Measures of Network Controllability on Canonical Graph Models. Journal of Nonlinear Science, 2020, 30, 2195-2233.	2.1	27
54	The diversity and multiplexity of edge communities within and between brain systems. Cell Reports, 2021, 37, 110032.	6.4	25

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55	Community structure of the creative brain at rest. NeuroImage, 2020, 210, 116578.	4.2	24
56	Subject identification using edge-centric functional connectivity. NeuroImage, 2021, 238, 118204.	4.2	24
57	Modularity maximization as a flexible and generic framework for brain network exploratory analysis. NeuroImage, 2021, 244, 118607.	4.2	22
58	Stability of spontaneous, correlated activity in mouse auditory cortex. PLoS Computational Biology, 2019, 15, e1007360.	3.2	21
59	Tracking mood fluctuations with functional network patterns. Social Cognitive and Affective Neuroscience, 2019, 14, 47-57.	3.0	16
60	Diurnal variations of resting-state fMRI data: A graph-based analysis. NeuroImage, 2022, 256, 119246.	4.2	16
61	Edge-centric analysis of stroke patients: An alternative approach for biomarkers of lesion recovery. NeuroImage: Clinical, 2022, 35, 103055.	2.7	15
62	Uncovering individual differences in fine-scale dynamics of functional connectivity. Cerebral Cortex, 2023, 33, 2375-2394.	2.9	15
63	Cortico-subcortical interactions in overlapping communities of edge functional connectivity. NeuroImage, 2022, 250, 118971.	4.2	14
64	Network neuroscience and the connectomics revolution. , 2022, , 25-58.		10
65	Social cognitive network neuroscience. Social Cognitive and Affective Neuroscience, 2022, 17, 510-529.	3.0	8
66	Benchmarking functional connectivity by the structure and geometry of the human brain. Network Neuroscience, 2022, 6, 937-949.	2.6	5
67	Organizing principles of the C.Âelegans contactome. Cell Systems, 2021, 12, 689-691.	6.2	0