

Patric Hagmann

List of Publications by Year in descending order

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Version: 2024-02-01

112
papers

14,781
citations

46984

47
h-index

28275

105
g-index

122
all docs

122
docs citations

122
times ranked

14087
citing authors

#	ARTICLE	IF	CITATIONS
1	Mapping the Structural Core of Human Cerebral Cortex. PLoS Biology, 2008, 6, e159.	2.6	3,556
2	Mapping complex tissue architecture with diffusion spectrum magnetic resonance imaging. Magnetic Resonance in Medicine, 2005, 54, 1377-1386.	1.9	1,228
3	Mapping Human Whole-Brain Structural Networks with Diffusion MRI. PLoS ONE, 2007, 2, e597.	1.1	707
4	Understanding Diffusion MR Imaging Techniques: From Scalar Diffusion-weighted Imaging to Diffusion Tensor Imaging and Beyond. Radiographics, 2006, 26, S205-S223.	1.4	618
5	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
6	Modeling the Impact of Lesions in the Human Brain. PLoS Computational Biology, 2009, 5, e1000408.	1.5	492
7	Resting-State Functional Connectivity Emerges from Structurally and Dynamically Shaped Slow Linear Fluctuations. Journal of Neuroscience, 2013, 33, 11239-11252.	1.7	476
8	Mapping the human connectome at multiple scales with diffusion spectrum MRI. Journal of Neuroscience Methods, 2012, 203, 386-397.	1.3	413
9	The Geometric Structure of the Brain Fiber Pathways. Science, 2012, 335, 1628-1634.	6.0	385
10	Gradients of structureâ€“function tethering across neocortex. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21219-21227.	3.3	345
11	Cooperative and Competitive Spreading Dynamics on the Human Connectome. Neuron, 2015, 86, 1518-1529.	3.8	309
12	How Local Excitation-Inhibition Ratio Impacts the Whole Brain Dynamics. Journal of Neuroscience, 2014, 34, 7886-7898.	1.7	303
13	Structural connectomics in brain diseases. NeuroImage, 2013, 80, 515-526.	2.1	286
14	Generative models of the human connectome. NeuroImage, 2016, 124, 1054-1064.	2.1	259
15	MR connectomics: Principles and challenges. Journal of Neuroscience Methods, 2010, 194, 34-45.	1.3	251
16	The Connectome Mapper: An Open-Source Processing Pipeline to Map Connectomes with MRI. PLoS ONE, 2012, 7, e48121.	1.1	248
17	Resting-State Temporal Synchronization Networks Emerge from Connectivity Topology and Heterogeneity. PLoS Computational Biology, 2015, 11, e1004100.	1.5	216
18	Structural Brain Connectivity in School-Age Preterm Infants Provides Evidence for Impaired Networks Relevant for Higher Order Cognitive Skills and Social Cognition. Cerebral Cortex, 2015, 25, 2793-2805.	1.6	169

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19	Quantitative Measurement of Brain Perfusion with Intravoxel Incoherent Motion MR Imaging. <i>Radiology</i> , 2012, 265, 874-881.	3.6	161
20	Measuring brain perfusion with intravoxel incoherent motion (IVIM): Initial clinical experience. <i>Journal of Magnetic Resonance Imaging</i> , 2014, 39, 624-632.	1.9	158
21	Identification of Optimal Structural Connectivity Using Functional Connectivity and Neural Modeling. <i>Journal of Neuroscience</i> , 2014, 34, 7910-7916.	1.7	138
22	Distance-dependent consensus thresholds for generating group-representative structural brain networks. <i>Network Neuroscience</i> , 2019, 3, 475-496.	1.4	119
23	An efficient total variation algorithm for super-resolution in fetal brain MRI with adaptive regularization. <i>NeuroImage</i> , 2015, 118, 584-597.	2.1	107
24	Multi-scale community organization of the human structural connectome and its relationship with resting-state functional connectivity. <i>Network Science</i> , 2013, 1, 353-373.	0.8	104
25	Robust T1-Weighted Structural Brain Imaging and Morphometry at 7T Using MP2RAGE. <i>PLoS ONE</i> , 2014, 9, e99676.	1.1	103
26	Nutrient Intake in the First Two Weeks of Life and Brain Growth in Preterm Neonates. <i>Pediatrics</i> , 2018, 141, .	1.0	101
27	The Connectome Viewer Toolkit: An Open Source Framework to Manage, Analyze, and Visualize Connectomes. <i>Frontiers in Neuroinformatics</i> , 2011, 5, 3.	1.3	95
28	Mapping higher-order relations between brain structure and function with embedded vector representations of connectomes. <i>Nature Communications</i> , 2018, 9, 2178.	5.8	95
29	Classifying minimally disabled multiple sclerosis patients from resting state functional connectivity. <i>NeuroImage</i> , 2012, 62, 2021-2033.	2.1	87
30	Natalizumab may control immune checkpoint inhibitor-induced limbic encephalitis. <i>Neurology: Neuroimmunology and NeuroInflammation</i> , 2018, 5, e439.	3.1	87
31	Spatial Patterning of Tissue Volume Loss in Schizophrenia Reflects Brain Network Architecture. <i>Biological Psychiatry</i> , 2020, 87, 727-735.	0.7	87
32	Hand preference and sex shape the architecture of language networks. <i>Human Brain Mapping</i> , 2006, 27, 828-835.	1.9	86
33	MR connectomics: a conceptual framework for studying the developing brain. <i>Frontiers in Systems Neuroscience</i> , 2012, 6, 43.	1.2	83
34	A spectrum of routing strategies for brain networks. <i>PLoS Computational Biology</i> , 2019, 15, e1006833.	1.5	83
35	Procedural pain and oral glucose in preterm neonates: brain development and sex-specific effects. <i>Pain</i> , 2018, 159, 515-525.	2.0	80
36	Path ensembles and a tradeoff between communication efficiency and resilience in the human connectome. <i>Brain Structure and Function</i> , 2017, 222, 603-618.	1.2	77

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37	Decreased integration and information capacity in stroke measured by whole brain models of resting state activity. <i>Brain</i> , 2017, 140, 1068-1085.	3.7	77
38	Task-Driven Activity Reduces the Cortical Activity Space of the Brain: Experiment and Whole-Brain Modeling. <i>PLoS Computational Biology</i> , 2015, 11, e1004445.	1.5	76
39	Dependence of Brain Intravoxel Incoherent Motion Perfusion Parameters on the Cardiac Cycle. <i>PLoS ONE</i> , 2013, 8, e72856.	1.1	73
40	White matter fiber tract segmentation in DT-MRI using geometric flows. <i>Medical Image Analysis</i> , 2005, 9, 223-236.	7.0	71
41	Characterizing the connectome in schizophrenia with diffusion spectrum imaging. <i>Human Brain Mapping</i> , 2015, 36, 354-366.	1.9	70
42	In-vivo probabilistic atlas of human thalamic nuclei based on diffusion-weighted magnetic resonance imaging. <i>Scientific Data</i> , 2018, 5, 180270.	2.4	67
43	Comparing connectomes across subjects and populations at different scales. <i>NeuroImage</i> , 2013, 80, 416-425.	2.1	65
44	Modeling Resting-State Functional Networks When the Cortex Falls Asleep: Local and Global Changes. <i>Cerebral Cortex</i> , 2014, 24, 3180-3194.	1.6	65
45	Transient networks of spatio-temporal connectivity map communication pathways in brain functional systems. <i>NeuroImage</i> , 2017, 155, 490-502.	2.1	65
46	A level set method for segmentation of the thalamus and its nuclei in DT-MRI. <i>Signal Processing</i> , 2007, 87, 309-321.	2.1	62
47	Impact of Early Nutritional Intake on Preterm Brain: A Magnetic Resonance Imaging Study. <i>Journal of Pediatrics</i> , 2017, 181, 29-36.e1.	0.9	60
48	Effective connectivity inferred from fMRI transition dynamics during movie viewing points to a balanced reconfiguration of cortical interactions. <i>NeuroImage</i> , 2018, 180, 534-546.	2.1	57
49	Signal propagation via cortical hierarchies. <i>Network Neuroscience</i> , 2020, 4, 1072-1090.	1.4	54
50	Brain structure in asymptomatic FMR1 premutation carriers at risk for fragile X-associated tremor/ataxia syndrome. <i>Neurobiology of Aging</i> , 2013, 34, 1700-1707.	1.5	52
51	Network-Based Asymmetry of the Human Auditory System. <i>Cerebral Cortex</i> , 2018, 28, 2655-2664.	1.6	51
52	Using Pareto optimality to explore the topology and dynamics of the human connectome. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130530.	1.8	50
53	Geometric renormalization unravels self-similarity of the multiscale human connectome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 20244-20253.	3.3	43
54	Multiscale communication in cortico-cortical networks. <i>NeuroImage</i> , 2021, 243, 118546.	2.1	42

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55	Fibertract segmentation in position orientation space from high angular resolution diffusion MRI. <i>NeuroImage</i> , 2006, 32, 665-675.	2.1	41
56	Connectome spectral analysis to track EEG task dynamics on a subsecond scale. <i>NeuroImage</i> , 2020, 221, 117137.	2.1	40
57	Adaptive Strategy for the Statistical Analysis of Connectomes. <i>PLoS ONE</i> , 2011, 6, e23009.	1.1	39
58	Beyond executive functions, creativity skills benefit academic outcomes: Insights from Montessori education. <i>PLoS ONE</i> , 2019, 14, e0225319.	1.1	38
59	Stochastic resonance at criticality in a network model of the human cortex. <i>Scientific Reports</i> , 2017, 7, 13020.	1.6	37
60	Redox dysregulation as a link between childhood trauma and psychopathological and neurocognitive profile in patients with early psychosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 12495-12500.	3.3	37
61	A brain atlas of axonal and synaptic delays based on modelling of cortico-cortical evoked potentials. <i>Brain</i> , 2022, 145, 1653-1667.	3.7	34
62	Automated template-based brain localization and extraction for fetal brain MRI reconstruction. <i>NeuroImage</i> , 2017, 155, 460-472.	2.1	31
63	Linking Entropy at Rest with the Underlying Structural Connectivity in the Healthy and Lesioned Brain. <i>Cerebral Cortex</i> , 2018, 28, 2948-2958.	1.6	31
64	Brain connectivity alterations in early psychosis: from clinical to neuroimaging staging. <i>Translational Psychiatry</i> , 2019, 9, 62.	2.4	31
65	Rapid high resolution T1 mapping as a marker of brain development: Normative ranges in key regions of interest. <i>PLoS ONE</i> , 2018, 13, e0198250.	1.1	30
66	Intrahemispheric cortico-cortical connections of the human auditory cortex. <i>Brain Structure and Function</i> , 2015, 220, 3537-3553.	1.2	28
67	Sensorimotor Induction of Auditory Misattribution in Early Psychosis. <i>Schizophrenia Bulletin</i> , 2020, 46, 947-954.	2.3	28
68	Improved statistical evaluation of group differences in connectomes by screening filtering strategy with application to study maturation of brain connections between childhood and adolescence. <i>NeuroImage</i> , 2015, 108, 251-264.	2.1	27
69	Computational Modeling of Resting-State Activity Demonstrates Markers of Normalcy in Children with Prenatal or Perinatal Stroke. <i>Journal of Neuroscience</i> , 2015, 35, 8914-8924.	1.7	26
70	Estimating the Confidence Level of White Matter Connections Obtained with MRI Tractography. <i>PLoS ONE</i> , 2008, 3, e4006.	1.1	25
71	N-Acetyl-Cysteine Supplementation Improves Functional Connectivity Within the Cingulate Cortex in Early Psychosis: A Pilot Study. <i>International Journal of Neuropsychopharmacology</i> , 2019, 22, 478-487.	1.0	25
72	Abnormal directed connectivity of resting state networks in focal epilepsy. <i>NeuroImage: Clinical</i> , 2020, 27, 102336.	1.4	24

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73	Functional harmonics reveal multi-dimensional basis functions underlying cortical organization. Cell Reports, 2021, 36, 109554.	2.9	24
74	Minimizing adjuvant treatment after transoral robotic surgery through surgical margin revision and exclusion of radiographic extracapsular extension: A Prospective observational cohort study. Head and Neck, 2017, 39, 965-973.	0.9	23
75	Distinct modes of functional connectivity induced by movie-watching. NeuroImage, 2019, 184, 335-348.	2.1	23
76	High b-value diffusion-weighted imaging: A sensitive method to reveal white matter differences in schizophrenia. Psychiatry Research - Neuroimaging, 2012, 201, 144-151.	0.9	21
77	A Connectome-Based Comparison of Diffusion MRI Schemes. PLoS ONE, 2013, 8, e75061.	1.1	21
78	Functional Mapping of the Human Visual Cortex with Intravoxel Incoherent Motion MRI. PLoS ONE, 2015, 10, e0117706.	1.1	21
79	The connectome spectrum as a canonical basis for a sparse representation of fast brain activity. NeuroImage, 2021, 244, 118611.	2.1	21
80	Exploring the role of white matter connectivity in cortex maturation. PLoS ONE, 2017, 12, e0177466.	1.1	20
81	Representing Diffusion MRI in 5-D Simplifies Regularization and Segmentation of White Matter Tracts. IEEE Transactions on Medical Imaging, 2007, 26, 1547-1554.	5.4	19
82	An affected core drives network integration deficits of the structural connectome in 22q11.2 deletion syndrome. NeuroImage: Clinical, 2016, 10, 239-249.	1.4	19
83	An fMRI study of error monitoring in Montessori and traditionally-schooled children. Npj Science of Learning, 2020, 5, 11.	1.5	19
84	Stable biomarker identification for predicting schizophrenia in the human connectome. NeuroImage: Clinical, 2020, 27, 102316.	1.4	19
85	Partial volume modeling reveals reduced gray matter in specific thalamic nuclei early in the time course of psychosis and chronic schizophrenia. Human Brain Mapping, 2020, 41, 4041-4061.	1.9	18
86	Using structural connectivity to augment community structure in EEG functional connectivity. Network Neuroscience, 2020, 4, 761-787.	1.4	16
87	Effects of Traditional Versus Montessori Schooling on 4- to 15-Year Old children's Performance Monitoring. Mind, Brain, and Education, 2020, 14, 167-175.	0.9	15
88	Cerebral Hypoperfusion in Posterior Reversible Encephalopathy Syndrome is Different from Transient Ischemic Attack on CT Perfusion. Journal of Neuroimaging, 2015, 25, 643-646.	1.0	14
89	Dynamic spatiotemporal patterns of brain connectivity reorganize across development. Network Neuroscience, 2020, 4, 115-133.	1.4	13
90	Fetal Brain Biometric Measurements on 3D Super-Resolution Reconstructed T2-Weighted MRI: An Intra- and Inter-observer Agreement Study. Frontiers in Pediatrics, 2021, 9, 639746.	0.9	13

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91	Effect of Field Spread on Resting-State Magneto Encephalography Functional Network Analysis: A Computational Modeling Study. <i>Brain Connectivity</i> , 2017, 7, 541-557.	0.8	12
92	Multi-scale integration and predictability in resting state brain activity. <i>Frontiers in Neuroinformatics</i> , 2014, 8, 66.	1.3	11
93	Routes Obey Hierarchy in Complex Networks. <i>Scientific Reports</i> , 2017, 7, 7243.	1.6	11
94	Fronto-Temporal Disconnection Within the Presence Hallucination Network in Psychotic Patients With Passivity Experiences. <i>Schizophrenia Bulletin</i> , 2021, 47, 1718-1728.	2.3	11
95	Connectome Mapper 3: A Flexible and Open-Source Pipeline Software for Multiscale Multimodal Human Connectome Mapping. <i>Journal of Open Source Software</i> , 2022, 7, 4248.	2.0	11
96	Automated MRI-based volumetry of basal ganglia and thalamus at the chronic phase of cortical stroke. <i>Neuroradiology</i> , 2020, 62, 1371-1380.	1.1	10
97	Discriminating cognitive motor dissociation from disorders of consciousness using structural MRI. <i>NeuroImage: Clinical</i> , 2021, 30, 102651.	1.4	6
98	A brief exposure to rightward prismatic adaptation changes resting-state network characteristics of the ventral attentional system. <i>PLoS ONE</i> , 2020, 15, e0234382.	1.1	4
99	Source imaging of high-density visual evoked potentials with multi-scale brain parcellations and connectomes. <i>Scientific Data</i> , 2022, 9, 9.	2.4	4
100	Structure supports function: Informing directed and dynamic functional connectivity with anatomical priors. <i>Network Neuroscience</i> , 2022, 6, 401-419.	1.4	4
101	A Fetal Brain magnetic resonance Acquisition Numerical phantom (FaBiAN). <i>Scientific Reports</i> , 2022, 12, .	1.6	4
102	Interindividual Covariations of Brain Functional and Structural Connectivities Are Decomposed Blindly to Subnetworks: A Fusion-Based Approach. <i>Journal of Magnetic Resonance Imaging</i> , 2020, 51, 1779-1788.	1.9	3
103	Transient tone anomalies in very preterm infants: Association with term-equivalent brain magnetic resonance imaging and neurodevelopment at 18 months. <i>Early Human Development</i> , 2020, 143, 104998.	0.8	3
104	Structural brain abnormalities in epilepsy with myoclonic atonic seizures. <i>Epilepsy Research</i> , 2021, 177, 106771.	0.8	2
105	T52. N-ACETYL-CYSTEINE ADD-ON TREATMENT LEADS TO AN IMPROVEMENT OF FORNIX WHITE MATTER INTEGRITY IN EARLY PSYCHOSIS. <i>Schizophrenia Bulletin</i> , 2018, 44, S133-S134.	2.3	1
106	An Anatomically-Informed 3D CNN for Brain Aneurysm Classification with Weak Labels. <i>Lecture Notes in Computer Science</i> , 2020, , 56-66.	1.0	1
107	F152. N-ACETYL-CYSTEINE SUPPLEMENTATION IMPROVES FUNCTIONAL CONNECTIVITY IN THE CINGULATE CORTEX IN EARLY PSYCHOSIS. <i>Schizophrenia Bulletin</i> , 2018, 44, S279-S279.	2.3	0
108	10.2 REDOX DYSREGULATION, OLIGODENDROCYTES AND WHITE MATTER ALTERATIONS IN SCHIZOPHRENIA. <i>Schizophrenia Bulletin</i> , 2018, 44, S15-S16.	2.3	0

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109	12.4 THE BODILY SELF IN PSYCHOSIS: SENSORIMOTOR INDUCTION OF AUDITORY MISATTRIBUTION IN PSYCHOSIS IS LINKED TO NEURAL DISCONNECTIVITY. Schizophrenia Bulletin, 2019, 45, S107-S108.	2.3	0
110	T160. HIGH-RESOLUTION WHOLE BRAIN MR SPECTROSCOPIC IMAGING IN YOUTHS AT CLINICAL HIGH RISK FOR PSYCHOSIS: A PILOT STUDY. Schizophrenia Bulletin, 2020, 46, S292-S292.	2.3	0
111	S143. NEURAL MECHANISMS OF ROBOT-INDUCED HALLUCINATIONS IN HEALTHY PARTICIPANTS AND SYMPTOMATIC HALLUCINATIONS OF NEUROLOGICAL AND PSYCHIATRIC ORIGIN. Schizophrenia Bulletin, 2020, 46, S90-S91.	2.3	0
112	Simulated Half-Fourier Acquisitions Single-shot Turbo Spin Echo (HASTE) of the Fetal Brain: Application to Super-Resolution Reconstruction. Lecture Notes in Computer Science, 2021, , 157-167.	1.0	0