Stamatios N Sotiropoulos

List of Publications by Year
in descending order

76	18,108	57758 44	88630 70
papers	citations	h-index	g-index

96	96	96	15222
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The minimal preprocessing pipelines for the Human Connectome Project. NeuroImage, 2013, 80, 105-124.	4.2	4,042
2	An integrated approach to correction for off-resonance effects and subject movement in diffusion MR imaging. NeuroImage, 2016, 125, 1063-1078.	4.2	2,562
3	Multimodal population brain imaging in the UK Biobank prospective epidemiological study. Nature Neuroscience, 2016, 19, 1523-1536.	14.8	1,414
4	Image processing and Quality Control for the first 10,000 brain imaging datasets from UK Biobank. NeuroImage, 2018, 166, 400-424.	4.2	1,026
5	Advances in diffusion MRI acquisition and processing in the Human Connectome Project. NeuroImage, 2013, 80, 125-143.	4.2	851
6	The Human Connectome Project's neuroimaging approach. Nature Neuroscience, 2016, 19, 1175-1187.	14.8	825
7	Pushing spatial and temporal resolution for functional and diffusion MRI in the Human Connectome Project. NeuroImage, 2013, 80, 80-104.	4.2	769
8	Incorporating outlier detection and replacement into a non-parametric framework for movement and distortion correction of diffusion MR images. NeuroImage, 2016, 141, 556-572.	4.2	559
9	Modelâ€based analysis of multishell diffusion MR data for tractography: How to get over fitting problems. Magnetic Resonance in Medicine, 2012, 68, 1846-1855.	3.0	336
10	Using Diffusion Tractography to Predict Cortical Connection Strength and Distance: A Quantitative Comparison with Tracers in the Monkey. Journal of Neuroscience, 2016, 36, 6758-6770.	3.6	318
11	Measuring macroscopic brain connections in vivo. Nature Neuroscience, 2015, 18, 1546-1555.	14.8	292
12	Extending the Human Connectome Project across ages: Imaging protocols for the Lifespan Development and Aging projects. NeuroImage, 2018, 183, 972-984.	4.2	290
13	Hierarchical Heterogeneity across Human Cortex Shapes Large-Scale Neural Dynamics. Neuron, 2019, 101, 1181-1194.e13.	8.1	271
14	Heritability of fractional anisotropy in human white matter: A comparison of Human Connectome Project and ENIGMA-DTI data. NeuroImage, 2015, 111, 300-311.	4.2	227
15	Non-parametric representation and prediction of single- and multi-shell diffusion-weighted MRI data using Gaussian processes. NeuroImage, 2015, 122, 166-176.	4.2	226
16	Studying neuroanatomy using MRI. Nature Neuroscience, 2017, 20, 314-326.	14.8	220
17	Building connectomes using diffusion MRI: why, how and but. NMR in Biomedicine, 2019, 32, e3752.	2.8	209
18	Subthalamic deep brain stimulation sweet spots and hyperdirect cortical connectivity in Parkinson's disease. NeuroImage, 2017, 158, 332-345.	4.2	197

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19	Automated quality control for within and between studies diffusion MRI data using a non-parametric framework for movement and distortion correction. NeuroImage, 2019, 184, 801-812.	4.2	197
20	Effects of image reconstruction on fiber orientation mapping from multichannel diffusion MRI: Reducing the noise floor using SENSE. Magnetic Resonance in Medicine, 2013, 70, 1682-1689.	3.0	169
21	High resolution whole brain diffusion imaging at 7 T for the Human Connectome Project. NeuroImage, 2015, 122, 318-331.	4.2	166
22	XTRACT - Standardised protocols for automated tractography in the human and macaque brain. NeuroImage, 2020, 217, 116923.	4.2	165
23	Accelerating Fibre Orientation Estimation from Diffusion Weighted Magnetic Resonance Imaging Using GPUs. PLoS ONE, 2013, 8, e61892.	2.5	152
24	Ball and rackets: Inferring fiber fanning from diffusion-weighted MRI. NeuroImage, 2012, 60, 1412-1425.	4.2	142
25	Evaluating fibre orientation dispersion in white matter: Comparison of diffusion MRI, histology and polarized light imaging. NeuroImage, 2017, 157, 561-574.	4.2	141
26	Whole brain comparative anatomy using connectivity blueprints. ELife, 2018, 7, .	6.0	135
27	Automated processing pipeline for neonatal diffusion MRI in the developing Human Connectome Project. NeuroImage, 2019, 185, 750-763.	4.2	127
28	The Human Connectome Project: A retrospective. NeuroImage, 2021, 244, 118543.	4.2	114
29	Using GPUs to accelerate computational diffusion MRI: From microstructure estimation to tractography and connectomes. NeuroImage, 2019, 188, 598-615.	4.2	107
30	The heritability of multi-modal connectivity in human brain activity. ELife, 2017, 6, .	6.0	107
31	The topographic connectome. Current Opinion in Neurobiology, 2013, 23, 207-215.	4.2	99
32	Fusion in diffusion MRI for improved fibre orientation estimation: An application to the 3T and 7T data of the Human Connectome Project. NeuroImage, 2016, 134, 396-409.	4.2	91
33	Image quality transfer and applications in diffusion MRI. NeuroImage, 2017, 152, 283-298.	4.2	91
34	Study protocol: the Whitehall II imaging sub-study. BMC Psychiatry, 2014, 14, 159.	2.6	82
35	How do spatially distinct frequency specific MEG networks emerge from one underlying structural connectome? The role of the structural eigenmodes. NeuroImage, 2019, 186, 211-220.	4.2	81
36	A probabilistic atlas of the cerebellar white matter. NeuroImage, 2016, 124, 724-732.	4.2	74

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37	A biophysical model of dynamic balancing of excitation and inhibition in fast oscillatory large-scale networks. PLoS Computational Biology, 2018, 14, e1006007.	3.2	73
38	Timeâ€efficient and flexible design of optimized multishell HARDI diffusion. Magnetic Resonance in Medicine, 2018, 79, 1276-1292.	3.0	72
39	On the mechanical behaviour of PEEK and HA cranial implants under impact loading. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 69, 342-354.	3.1	70
40	Towards HCP-Style macaque connectomes: 24-Channel 3T multi-array coil, MRI sequences and preprocessing. NeuroImage, 2020, 215, 116800.	4.2	67
41	Bayesian Image Quality Transfer with CNNs: Exploring Uncertainty in dMRI Super-Resolution. Lecture Notes in Computer Science, 2017, , 611-619.	1.3	67
42	Quantum computing at the frontiers of biological sciences. Nature Methods, 2021, 18, 701-709.	19.0	64
43	Uncertainty modelling in deep learning for safer neuroimage enhancement: Demonstration in diffusion MRI. NeuroImage, 2021, 225, 117366.	4.2	59
44	Assessing the direct effects of deep brain stimulation using embedded axon models. Journal of Neural Engineering, 2007, 4, 107-119.	3.5	58
45	Brain tractography using Q-ball imaging and graph theory: Improved connectivities through fibre crossings via a model-based approach. NeuroImage, 2010, 49, 2444-2456.	4.2	56
46	Mapping Connections in Humans andÂNon-Human Primates. , 2014, , 337-358.		53
47	Accelerating Fibre Orientation Estimation from Diffusion Weighted Magnetic Resonance Imaging Using GPUs. , 2012, , .		51
48	Structural Organization of the Corpus Callosum Predicts Attentional Shifts after Continuous Theta Burst Stimulation. Journal of Neuroscience, 2015, 35, 15353-15368.	3.6	45
49	The Developing Human Connectome Project Neonatal Data Release. Frontiers in Neuroscience, 2022, 16, .	2.8	42
50	Improved tractography using asymmetric fibre orientation distributions. NeuroImage, 2017, 158, 205-218.	4.2	39
51	RubiX: Combining Spatial Resolutions for Bayesian Inference of Crossing Fibers in Diffusion MRI. IEEE Transactions on Medical Imaging, 2013, 32, 969-982.	8.9	32
52	A regularized twoâ€tensor model fit to low angular resolution diffusion images using basis directions. Journal of Magnetic Resonance Imaging, 2008, 28, 199-209.	3.4	31
53	Spherical Deconvolution of Multichannel Diffusion MRI Data with Non-Gaussian Noise Models and Spatial Regularization. PLoS ONE, 2015, 10, e0138910.	2.5	27
54	Cognition based bTBI mechanistic criteria; a tool for preventive and therapeutic innovations. Scientific Reports, 2018, 8, 10273.	3.3	25

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55	The role of node dynamics in shaping emergent functional connectivity patterns in the brain. Network Neuroscience, 2020, 4, 467-483.	2.6	25
56	A dataâ€driven approach to optimising the encoding for multiâ€shell diffusion MRI with application to neonatal imaging. NMR in Biomedicine, 2020, 33, e4348.	2.8	18
57	Improved fibre dispersion estimation using b-tensor encoding. NeuroImage, 2020, 215, 116832.	4.2	17
58	Predicting timeâ€resolved electrophysiological brain networks from structural eigenmodes. Human Brain Mapping, 2022, 43, 4475-4491.	3.6	17
59	Bayesian Optimisation of Large-Scale Biophysical Networks. NeuroImage, 2018, 174, 219-236.	4.2	16
60	Modelling white matter in gyral blades as a continuous vector field. NeuroImage, 2021, 227, 117693.	4.2	15
61	MR Diffusion Tractography. , 2014, , 429-451.		14
62	Mechanisms and Risk Factors Contributing to Visual Field Deficits following Stereotactic Laser Amygdalohippocampotomy. Stereotactic and Functional Neurosurgery, 2019, 97, 255-265.	1.5	14
63	Non-negative data-driven mapping of structural connections with application to the neonatal brain. NeuroImage, 2020, 222, 117273.	4.2	14
64	A gyral coordinate system predictive of fibre orientations. NeuroImage, 2018, 176, 417-430.	4.2	13
65	The association between inadequate sleep and accelerated brain ageing. Neurobiology of Aging, 2022, 114, 1-14.	3.1	13
66	MRS and DTI evidence of progressive posterior cingulate cortex and corpus callosum injury in the hyper-acute phase after Traumatic Brain Injury. Brain Injury, 2019, 33, 854-868.	1.2	10
67	Fuzzy anatomical connectedness of the brain using single and multiple fibre orientations estimated from diffusion MRI. Computerized Medical Imaging and Graphics, 2010, 34, 504-513.	5.8	6
68	Estimation of white matter fiber parameters from compressed multiresolution diffusion MRI using sparse Bayesian learning. NeuroImage, 2018, 167, 488-503.	4.2	6
69	Anticholinergic drugs and forebrain magnetic resonance imaging changes in cognitively normal people and those with mild cognitive impairment. European Journal of Neurology, 2022, 29, 1344-1353.	3.3	5
70	Sparse Bayesian Inference of White Matter Fiber Orientations from Compressed Multi-resolution Diffusion MRI. Lecture Notes in Computer Science, 2015, 9349, 117-124.	1.3	4
71	Long-Term Connectome Analysis Reveals Reshaping of Visual, Spatial Networks in a Model With Vascular Dementia Features. Stroke, 2022, 53, 1735-1745.	2.0	4
72	Right fronto-parietal networks mediate the neurocognitive benefits of enriched environments. Brain Communications, 2022, 4, fcac080.	3.3	3

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73	In-vivo brain anatomical connectivity using diffusion magnetic resonance imaging and fuzzy connectedness. , 2008, , .		2
74	Robust graph-based tracking through crossing fibre configurations. , 2009, , .		1
75	Exact and analytic bayesian inference for orientation distribution functions. , 2010, , .		1
76	A Sparse Bayesian Learning Algorithm forÂWhite Matter Parameter Estimation fromÂCompressed Multi-shell Diffusion MRI. Lecture Notes in Computer Science, 2017, 10433, 602-610.	1.3	0