Kurt G Schilling

List of Publications by Year
in descending order

83 papers	2,064 citations	393982 19 h-index	329751 37 g-index
104 all docs	104 docs citations	104 times ranked	2375 citing authors

#	Article	IF	Citations
1	Limits to anatomical accuracy of diffusion tractography using modern approaches. NeuroImage, 2019, 185, 1-11.	2.1	200
2	Histological validation of diffusion MRI fiber orientation distributions and dispersion. NeuroImage, 2018, 165, 200-221.	2.1	156
3	Confirmation of a gyral bias in diffusion <scp>MRI</scp> fiber tractography. Human Brain Mapping, 2018, 39, 1449-1466.	1.9	105
4	Functional MRI and resting state connectivity in white matter - a mini-review. Magnetic Resonance Imaging, 2019, 63, 1-11.	1.0	104
5	Challenges in diffusion MRI tractography â€“ Lessons learned from international benchmark competitions. Magnetic Resonance Imaging, 2019, 57, 194-209.	1.0	99
6	Tractography dissection variability: What happens when 42 groups dissect 14 white matter bundles on the same dataset?. NeuroImage, 2021, 243, 118502.	2.1	94
7	Synthesized b0 for diffusion distortion correction (Synb0-DisCo). Magnetic Resonance Imaging, 2019, 64, 62-70.	1.0	87
8	Comparison of 3D orientation distribution functions measured with confocal microscopy and diffusion MRI. NeuroImage, 2016, 129, 185-197.	2.1	85
9	Challenges for biophysical modeling of microstructure. Journal of Neuroscience Methods, 2020, 344, 108861.	1.3	85
10	Can increased spatial resolution solve the crossing fiber problem for diffusion MRI?. NMR in Biomedicine, 2017, 30, e3787.	1.6	61
11	Distortion correction of diffusion weighted MRIÂwithout reverse phase-encoding scans or field-maps. PLoS ONE, 2020, 15, e0236418.	1.1	60
12	A fiber coherence index for quality control of B-table orientation in diffusion MRI scans. Magnetic Resonance Imaging, 2019, 58, 82-89.	1.0	58
13	Brain connections derived from diffusion MRI tractography can be highly anatomically accurateâ€”if we know where white matter pathways start, where they end, and where they do not go. Brain Structure and Function, 2020, 225, 2387-2402.	1.2	58
14	Cross-scanner and cross-protocol multi-shell diffusion MRI data harmonization: Algorithms and results. NeuroImage, 2020, 221, 117128.	2.1	54
15	PreQual: An automated pipeline for integrated preprocessing and quality assurance of diffusion weighted MRI images. Magnetic Resonance in Medicine, 2021, 86, 456-470.	1.9	43
16	Tractography reproducibility challenge with empirical data (TraCED): The 2017 ISMRM diffusion study group challenge. Journal of Magnetic Resonance Imaging, 2020, 51, 234-249.	1.9	38
17	Anatomical accuracy of standard-practice tractography algorithms in the motor system - A histological validation in the squirrel monkey brain. Magnetic Resonance Imaging, 2019, 55, 7-25.	1.0	36
18	Fiber tractography bundle segmentation depends on scanner effects, vendor effects, acquisition resolution, diffusion sampling scheme, diffusion sensitization, and bundle segmentation workflow. NeuroImage, 2021, 242, 118451.	2.1	35

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19	Prevalence of white matter pathways coming into a single white matter voxel orientation: The bottleneck issue in tractography. Human Brain Mapping, 2022, 43, 1196-1213.	1.9	34
20	Deep learning reveals untapped information for local white-matter fiber reconstruction in diffusion-weighted MRI. Magnetic Resonance Imaging, 2019, 62, 220-227.	1.0	27
21	Advanced Multicompartment Diffusion MRI Models and Their Application in Multiple Sclerosis. American Journal of Neuroradiology, 2020, 41, 751-757.	1.2	27
22	Resting-state white matter-cortical connectivity in non-human primate brain. NeuroImage, 2019, 184, 45-55.	2.1	26
23	Aging and white matter microstructure and macrostructure: a longitudinal multi-site diffusion MRI study of 1218 participants. Brain Structure and Function, 2022, 227, 2111-2125.	1.2	25
24	The VALiDATe29 MRI Based Multi-Channel Atlas of the Squirrel Monkey Brain. Neuroinformatics, 2017, 15, 321-331.	1.5	23
25	An atlas of white matter anatomy, its variability, and reproducibility based on constrained spherical deconvolution of diffusion MRI. NeuroImage, 2022, 254, 119029.	2.1	23
26	Reproducibility and variation of diffusion measures in the squirrel monkey brain, in vivo and ex vivo. Magnetic Resonance Imaging, 2017, 35, 29-38.	1.0	22
27	Functional tractography of white matter by high angular resolution functionalâ€correlation imaging (HARFI). Magnetic Resonance in Medicine, 2019, 81, 2011-2024.	1.9	21
28	Diffusion MRI microstructural models in the cervical spinal cord â€“ Application, normative values, and correlations with histological analysis. NeuroImage, 2019, 201, 116026.	2.1	17
29	Insights from the IronTract challenge: Optimal methods for mapping brain pathways from multi-shell diffusion MRI. NeuroImage, 2022, 257, 119327.	2.1	17
30	Effects of b-value and number of gradient directions on diffusion MRI measures obtained with Q-ball imaging. Proceedings of SPIE, 2017, 10133, .	0.8	16
31	Empirical reproducibility, sensitivity, and optimization of acquisition protocol, for Neurite Orientation Dispersion and Density Imaging using AMICO. Magnetic Resonance Imaging, 2018, 50, 96-109.	1.0	16
32	Histologically derived fiber response functions for diffusion MRI vary across white matter fibersâ€”An ex vivo validation study in the squirrel monkey brain. NMR in Biomedicine, 2019, 32, e4090.	1.6	16
33	MASiVar: Multisite, multiscanner, and multisubject acquisitions for studying variability in diffusion weighted MRI. Magnetic Resonance in Medicine, 2021, 86, 3304-3320.	1.9	16
34	Pandora: 4-D White Matter Bundle Population-Based Atlases Derived from Diffusion MRI Fiber Tractography. Neuroinformatics, 2021, 19, 447-460.	1.5	15
35	Inter-Scanner Harmonization of High Angular Resolution DW-MRI Using Null Space Deep Learning. Mathematics and Visualization, 2019, , 193-201.	0.4	14
36	Tests of cortical parcellation based on white matter connectivity using diffusion tensor imaging. NeuroImage, 2018, 170, 321-331.	2.1	13

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37	Gray Matter Surface Based Spatial Statistics (GS-BSS) in Diffusion Microstructure. Lecture Notes in Computer Science, 2017, 10433, 638-646.	1.0	13
38	A brain MRI atlas of the common squirrel monkey,Saimiri sciureus. , 2014, 9038, 90380C.		12
39	A Web-Based Atlas Combining MRI and Histology of the Squirrel Monkey Brain. Neuroinformatics, 2019, 17, 131-145.	1.5	11
40	Deep learning estimation of multi-tissue constrained spherical deconvolution with limited single shell DW-MRI. , 2020, 11313, .		11
41	A 3D high resolution ex vivo white matter atlas of the common squirrel monkey (saimiri sciureus) based on diffusion tensor imaging. , 2016, 9784, .		10
42	Empirical field mapping for gradient nonlinearity correction of multi-site diffusion weighted MRI. Magnetic Resonance Imaging, 2021, 76, 69-78.	1.0	10
43	On the generalizability of diffusion MRI signal representations across acquisition parameters, sequences and tissue types: Chronicles of the MEMENTO challenge. NeuroImage, 2021, 240, 118367.	2.1	10
44	MRI network progression in mesial temporal lobe epilepsy related to healthy brain architecture. Network Neuroscience, 2021, 5, 434-450.	1.4	9
45	Tractostorm 2: Optimizing tractography dissection reproducibility with segmentation protocol dissemination. Human Brain Mapping, 2022, 43, 2134-2147.	1.9	8
46	Empirical consideration of the effects of acquisition parameters and analysis model on clinically feasible q-ball imaging. Magnetic Resonance Imaging, 2017, 40, 62-74.	1.0	7
47	Comparison of multi-fiber reproducibility of PAS-MRI and Q-ball with empirical multiple b-value HARDI. Proceedings of SPIE, 2017, 10133, .	0.8	6
48	Characterization and correlation of signal drift in diffusion weighted MRI. Magnetic Resonance Imaging, 2019, 57, 133-142.	1.0	6
49	Empirical estimation of intravoxel structure with persistent angular structure and Q-ball models of diffusion weighted MRI. Journal of Medical Imaging, 2018, 5, 1.	0.8	6
50	AI in MRI: A case for grassroots deep learning. Magnetic Resonance Imaging, 2019, 64, 1-3.	1.0	5
51	Enabling Multi-shell b-Value Generalizability of Data-Driven Diffusion Models with Deep SHORE. Lecture Notes in Computer Science, 2019, 11766, 573-581.	1.0	5
52	Harmonizing 1.5T/3T diffusion weighted MRI through development of deep learning stabilized microarchitecture estimators. , 2019, 10949, .		5
53	The influence of regions of interest on tractography virtual dissection protocols: general principles to learn and to follow. Brain Structure and Function, 2022, 227, 2191-2207.	1.2	5
54	Integrating histology and MRI in the first digital brain of common squirrel monkey, Saimiri sciureus. , 2015, 9417, .		4

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55	Improved gray matter surface based spatial statistics in neuroimaging studies. Magnetic Resonance Imaging, 2019, 61, 285-295.	1.0	4
56	Learning white matter subjectâ€specific segmentation from structural MRI. Medical Physics, 2022, , .	1.6	4
57	EPI susceptibility correction introduces significant differences far from local areas of high distortion. Magnetic Resonance Imaging, 2022, 92, 1-9.	1.0	4
58	Empirical single sample quantification of bias and variance in Qâ€ball imaging. Magnetic Resonance in Medicine, 2018, 80, 1666-1675.	1.9	3
59	Detection of functional activity in brain white matter using fiber architecture informed synchrony mapping. NeuroImage, 2022, 258, 119399.	2.1	3
60	Harmonization of White and Gray Matter Features in Diffusion Microarchitecture for Cross-Sectional Studies. Lecture Notes in Computational Vision and Biomechanics, 2019, , 21-29.	0.5	2
61	Joint cortical surface and structural connectivity analysis of Alzheimerâ€™s disease. , 2021, 11596, .		2
62	SHARD: spherical harmonic-based robust outlier detection for HARDI methods. , 2018, 10574, .		2
63	Inter-Scanner Harmonization of High Angular Resolution DW-MRI using Null Space Deep Learning. Lecture Notes-monograph Series / Institute of Mathematical Statistics, 2019, 2019, 193-201.	1.0	2
64	Longitudinal changes of connectomes and graph theory measures in aging. , 2022, 12032, .		2
65	A deep learning approach to estimation of subject-level bias and variance in high angular resolution diffusion imaging. Magnetic Resonance Imaging, 2019, 59, 130-136.	1.0	1
66	TractEM: Evaluation of protocols for deterministic tractography white matter atlas. Magnetic Resonance Imaging, 2022, 85, 44-56.	1.0	1
67	MRI correlates of chronic symptoms in mild traumatic brain injury. , 2020, 11313, .		1
68	Cover Image, Volume 30, Issue 12. NMR in Biomedicine, 2017, 30, i.	1.6	0
69	Learning 3D White Matter Microstructure from 2D Histology. , 2019, 2019, 186-190.		0
70	Joint analysis of structural connectivity and cortical surface features: correlates with mild traumatic brain injury. , 2021, 11596, .		0
71	Tests of clustering thalamic nuclei based on various dMRI models in the squirrel monkey brain. , 2018, 10578, .		0
72	Quantitative assessment of dMRI-based dentate-rubro-thalamic tractography in squirrel monkey. , 2019, , .		0

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73	Consideration of cerebrospinal fluid intensity variation in diffusion weighted MRI. , 2019, 10948, .		0
74	Current Challenges and Future Directions in Diffusion MRI: From Model- to Data- Driven Analysis. Mathematics and Visualization, 2020, , 63-78.	0.4	0
75	Workflow Integration of Research AI Tools into a Hospital Radiology Rapid Prototyping Environment. Journal of Digital Imaging, 2022, , 1.	1.6	0
76	Joint independent component analysis for hypothesizing spatiotemporal relationships between longitudinal gray and white matter changes in preclinical Alzheimerâ€™s disease. , 2022, , .		0
77	Mapping the impact of non-linear gradient fields on diffusion MRI tensor estimation. , 2022, , .		0
78	Distortion correction of diffusion weighted MRI without reverse phase-encoding scans or field-maps. , 2020, 15, e0236418.		0
79	Distortion correction of diffusion weighted MRI without reverse phase-encoding scans or field-maps. , 2020, 15, e0236418.		0
80	Distortion correction of diffusion weighted MRI without reverse phase-encoding scans or field-maps. , 2020, 15, e0236418.		0
81	Distortion correction of diffusion weighted MRI without reverse phase-encoding scans or field-maps. , 2020, 15, e0236418.		0
82	Distortion correction of diffusion weighted MRI without reverse phase-encoding scans or field-maps. , 2020, 15, e0236418.		0
83	Distortion correction of diffusion weighted MRI without reverse phase-encoding scans or field-maps. , 2020, 15, e0236418.		0