

Lauren J O'donnell

List of Publications by Year in descending order

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Version: 2024-02-01

93
papers

4,377
citations

136950

32
h-index

128289

60
g-index

103
all docs

103
docs citations

103
times ranked

4518
citing authors

#	ARTICLE	IF	CITATIONS
1	Automatic Tractography Segmentation Using a High-Dimensional White Matter Atlas. IEEE Transactions on Medical Imaging, 2007, 26, 1562-1575.	8.9	342
2	An integrated visualization system for surgical planning and guidance using image fusion and an open MR. Journal of Magnetic Resonance Imaging, 2001, 13, 967-975.	3.4	327
3	An Introduction to Diffusion Tensor Image Analysis. Neurosurgery Clinics of North America, 2011, 22, 185-196.	1.7	327
4	Q-space trajectory imaging for multidimensional diffusion MRI of the human brain. NeuroImage, 2016, 135, 345-362.	4.2	256
5	Corpus Callosum Abnormalities and Their Association with Psychotic Symptoms in Patients with Schizophrenia. Biological Psychiatry, 2010, 68, 70-77.	1.3	169
6	Tract-based morphometry for white matter group analysis. NeuroImage, 2009, 45, 832-844.	4.2	168
7	White matter tractography for neurosurgical planning: A topography-based review of the current state of the art. NeuroImage: Clinical, 2017, 15, 659-672.	2.7	162
8	An anatomically curated fiber clustering white matter atlas for consistent white matter tract parcellation across the lifespan. NeuroImage, 2018, 179, 429-447.	4.2	146
9	Automated white matter fiber tract identification in patients with brain tumors. NeuroImage: Clinical, 2017, 13, 138-153.	2.7	109
10	A combined fMRI and DTI examination of functional language lateralization and arcuate fasciculus structure: Effects of degree versus direction of hand preference. Brain and Cognition, 2010, 73, 85-92.	1.8	100
11	Resolving crossings in the corticospinal tract by two-tensor streamline tractography: Method and clinical assessment using fMRI. NeuroImage, 2009, 47, T98-T106.	4.2	95
12	Quantitative mapping of the brain's structural connectivity using diffusion MRI tractography: A review. NeuroImage, 2022, 249, 118870.	4.2	95
13	Tractography dissection variability: What happens when 42 groups dissect 14 white matter bundles on the same dataset?. NeuroImage, 2021, 243, 118502.	4.2	94
14	SlicerDMRI: Open Source Diffusion MRI Software for Brain Cancer Research. Cancer Research, 2017, 77, e101-e103.	0.9	89
15	Does diffusion MRI tell us anything about the white matter? An overview of methods and pitfalls. Schizophrenia Research, 2015, 161, 133-141.	2.0	86
16	Fiber clustering versus the parcellation-based connectome. NeuroImage, 2013, 80, 283-289.	4.2	80
17	Sparse Reconstruction Challenge for diffusion MRI: Validation on a physical phantom to determine which acquisition scheme and analysis method to use?. Medical Image Analysis, 2015, 26, 316-331.	11.6	78
18	Whole brain white matter connectivity analysis using machine learning: An application to autism. NeuroImage, 2018, 172, 826-837.	4.2	70

#	ARTICLE	IF	CITATIONS
19	New Approaches to Estimation of White Matter Connectivity in Diffusion Tensor MRI: Elliptic PDEs and Geodesics in a Tensor-Warped Space. Lecture Notes in Computer Science, 2002, , 459-466.	1.3	69
20	Support vector regression. , 2020, , 123-140.		67
21	Testâ€“retest reproducibility of white matter parcellation using diffusion MRI tractography fiber clustering. Human Brain Mapping, 2019, 40, 3041-3057.	3.6	61
22	Reconstruction of the arcuate fasciculus for surgical planning in the setting of peritumoral edema using two-tensor unscented Kalman filter tractography. NeuroImage: Clinical, 2015, 7, 815-822.	2.7	60
23	Unbiased Groupwise Registration of White Matter Tractography. Lecture Notes in Computer Science, 2012, 15, 123-130.	1.3	59
24	Increasing the impact of medical image computing using community-based open-access hackathons: The NA-MIC and 3D Slicer experience. Medical Image Analysis, 2016, 33, 176-180.	11.6	58
25	Deep white matter analysis (DeepWMA): Fast and consistent tractography segmentation. Medical Image Analysis, 2020, 65, 101761.	11.6	57
26	SlicerDMRI: Diffusion MRI and Tractography Research Software for Brain Cancer Surgery Planning and Visualization. JCO Clinical Cancer Informatics, 2020, 4, 299-309.	2.1	52
27	Quantitative examination of a novel clustering method using magnetic resonance diffusion tensor tractography. NeuroImage, 2009, 45, 370-376.	4.2	46
28	PDAM: A Panoptic-Level Feature Alignment Framework for Unsupervised Domain Adaptive Instance Segmentation in Microscopy Images. IEEE Transactions on Medical Imaging, 2021, 40, 154-165.	8.9	46
29	Longitudinal diffusion changes in prodromal and early <sc>HD</sc>: Evidence of whiteâ€“matter tract deterioration. Human Brain Mapping, 2017, 38, 1460-1477.	3.6	45
30	Brain-Behavior Participant Similarity Networks Among Youth and Emerging Adults with Schizophrenia Spectrum, Autism Spectrum, or Bipolar Disorder and Matched Controls. Neuropsychopharmacology, 2018, 43, 1180-1188.	5.4	45
31	Corticospinal tract modeling for neurosurgical planning by tracking through regions of peritumoral edema and crossing fibers using two-tensor unscented Kalman filter tractography. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 1475-1486.	2.8	42
32	Free water modeling of peritumoral edema using multi-fiber tractography: Application to tracking the arcuate fasciculus for neurosurgical planning. PLoS ONE, 2018, 13, e0197056.	2.5	40
33	Nonlinear Registration of Diffusion MR Images Based on Fiber Bundles. , 2007, 10, 351-358.		39
34	Performance of unscented Kalman filter tractography in edema: Analysis of the two-tensor model. NeuroImage: Clinical, 2017, 15, 819-831.	2.7	37
35	Deep learning based segmentation of brain tissue from diffusion MRI. NeuroImage, 2021, 233, 117934.	4.2	36
36	Investigation into local white matter abnormality in emotional processing and sensorimotor areas using an automatically annotated fiber clustering in major depressive disorder. NeuroImage, 2018, 181, 16-29.	4.2	34

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37	Visual Pathway Study Using In Vivo Diffusion Tensor Imaging Tractography to Complement Classic Anatomy. <i>Operative Neurosurgery</i> , 2012, 70, ons145-ons156.	0.8	32
38	A comparison of three fiber tract delineation methods and their impact on white matter analysis. <i>NeuroImage</i> , 2018, 178, 318-331.	4.2	32
39	Locally-Transferred Fisher Vectors for Texture Classification. , 2017, , .		31
40	Polygenic Risk and Neural Substrates of Attention-Deficit/Hyperactivity Disorder Symptoms in Youths With a History of Mild Traumatic Brain Injury. <i>Biological Psychiatry</i> , 2019, 85, 408-416.	1.3	27
41	Suprathreshold fiber cluster statistics: Leveraging white matter geometry to enhance tractography statistical analysis. <i>NeuroImage</i> , 2018, 171, 341-354.	4.2	26
42	Anatomical assessment of trigeminal nerve tractography using diffusion MRI: A comparison of acquisition b-values and single- and multi-fiber tracking strategies. <i>NeuroImage: Clinical</i> , 2020, 25, 102160.	2.7	25
43	Diffusion Tensor and Functional MRI Fusion with Anatomical MRI for Image-Guided Neurosurgery. <i>Lecture Notes in Computer Science</i> , 2003, , 407-415.	1.3	24
44	Right inferior longitudinal fasciculus lesions disrupt visual-emotional integration. <i>Social Cognitive and Affective Neuroscience</i> , 2016, 11, 945-951.	3.0	22
45	Patient-specific connectomic models correlate with, but do not reliably predict, outcomes in deep brain stimulation for obsessive-compulsive disorder. <i>Neuropsychopharmacology</i> , 2022, 47, 965-972.	5.4	22
46	Fiber geometry in the corpus callosum in schizophrenia: Evidence for transcallosal misconnection. <i>Schizophrenia Research</i> , 2011, 132, 69-74.	2.0	21
47	Comparison of multiple tractography methods for reconstruction of the retinogeniculate visual pathway using diffusion MRI. <i>Human Brain Mapping</i> , 2021, 42, 3887-3904.	3.6	21
48	fMRI-DTI modeling via landmark distance atlases for prediction and detection of fiber tracts. <i>NeuroImage</i> , 2012, 60, 456-470.	4.2	20
49	White matter association tracts underlying language and theory of mind: An investigation of 809 brains from the Human Connectome Project. <i>NeuroImage</i> , 2022, 246, 118739.	4.2	18
50	Advances in computational and statistical diffusion MRI. <i>NMR in Biomedicine</i> , 2019, 32, e3805.	2.8	17
51	Creation of a novel trigeminal tractography atlas for automated trigeminal nerve identification. <i>NeuroImage</i> , 2020, 220, 117063.	4.2	17
52	Image Registration to Compensate for EPI Distortion in Patients with Brain Tumors: An Evaluation of Tract-specific Effects. <i>Journal of Neuroimaging</i> , 2018, 28, 173-182.	2.0	15
53	MK-curve - Characterizing the relation between mean kurtosis and alterations in the diffusion MRI signal. <i>NeuroImage</i> , 2019, 196, 68-80.	4.2	15
54	Individual variations of the human corticospinal tract and its hand-related motor fibers using diffusion MRI tractography. <i>Brain Imaging and Behavior</i> , 2020, 14, 696-714.	2.1	14

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55	Investigation of local white matter abnormality in Parkinson's disease by using an automatic fiber tract parcellation. Behavioural Brain Research, 2020, 394, 112805.	2.2	14
56	Genetic load determines atrophy in hand corticostriatal pathways in presymptomatic Huntington's disease. Human Brain Mapping, 2018, 39, 3871-3883.	3.6	13
57	3D Exploration of the Brainstem in 50-Micron Resolution MRI. Frontiers in Neuroanatomy, 2020, 14, 40.	1.7	13
58	Image registration: Maximum likelihood, minimum entropy and deep learning. Medical Image Analysis, 2021, 69, 101939.	11.6	13
59	Phase-Based User-Steered Image Segmentation. Lecture Notes in Computer Science, 2001, , 1022-1030.	1.3	12
60	Older age, male sex, and cerebral microbleeds predict white matter loss after traumatic brain injury. GeroScience, 2022, 44, 83-102.	4.6	11
61	Deep White Matter Analysis: Fast, Consistent Tractography Segmentation Across Populations and dMRI Acquisitions. Lecture Notes in Computer Science, 2019, 11766, 599-608.	1.3	10
62	Deep Diffusion MRI Registration (DDMReg): A Deep Learning Method for Diffusion MRI Registration. IEEE Transactions on Medical Imaging, 2022, 41, 1454-1467.	8.9	10
63	DSNet: A Dual-Stream Framework for Weakly-Supervised Gigapixel Pathology Image Analysis. IEEE Transactions on Medical Imaging, 2022, 41, 2180-2190.	8.9	10
64	Tract-Based Morphometry. , 2007, , 161-168.		9
65	Deep Fiber Clustering: Anatomically Informed Unsupervised Deep Learning for Fast and Effective White Matter Parcellation. Lecture Notes in Computer Science, 2021, , 497-507.	1.3	9
66	High-Dimensional White Matter Atlas Generation and Group Analysis. Lecture Notes in Computer Science, 2006, , 243-251.	1.3	9
67	The Fiber Laterality Histogram: A New Way to Measure White Matter Asymmetry. Lecture Notes in Computer Science, 2010, 13, 225-232.	1.3	8
68	Fiber clustering based white matter connectivity analysis for prediction of Autism Spectrum Disorder using diffusion tensor imaging. , 2016, , .		8
69	Comparison between two white matter segmentation strategies: An investigation into white matter segmentation consistency. , 2017, , .		7
70	Utilizing Mutual Information Analysis to Explore the Relationship Between Gray and White Matter Structural Pathologies in Schizophrenia. Schizophrenia Bulletin, 2019, 45, 386-395.	4.3	7
71	Celltrack R-CNN: A Novel End-To-End Deep Neural Network For Cell Segmentation And Tracking In Microscopy Images. , 2021, , .		7
72	Sex-Related Differences in White Matter Asymmetry and Its Implications for Verbal Working Memory in Psychosis High-Risk State. Frontiers in Psychiatry, 2021, 12, 686967.	2.6	7

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73	Exposure to Repetitive Head Impacts Is Associated With Corpus Callosum Microstructure and Plasma Total Tau in Former Professional American Football Players. <i>Journal of Magnetic Resonance Imaging</i> , 2021, 54, 1819-1829.	3.4	7
74	Supwma: Consistent and Efficient Tractography Parcellation of Superficial White Matter with Deep Learning. , 2022, , .		7
75	Automated connectivity-based groupwise cortical atlas generation: Application to data of neurosurgical patients with brain tumors for cortical parcellation prediction. , 2017, , .		5
76	Tract-based morphometry. , 2007, 10, 161-8.		5
77	Post-Traumatic Cerebral Microhemorrhages and their Effects Upon White Matter Connectivity in the Aging Human Brain. , 2019, 2019, 198-203.		4
78	Case Report: The Imperfect Association Between Craniofacial Lesion Burden and Pain in Fibrous Dysplasia. <i>Frontiers in Neurology</i> , 2022, 13, 855157.	2.4	4
79	Model and Predict Age and Sex in Healthy Subjects Using Brain White Matter Features: A Deep Learning Approach. , 2022, , .		4
80	FiberStars: Visual Comparison of Diffusion Tractography Data between Multiple Subjects. , 2021, , .		3
81	TRAKO: Efficient Transmission of Tractography Data for Visualization. <i>Lecture Notes in Computer Science</i> , 2020, 12267, 322-332.	1.3	3
82	Statistical and Machine Learning Methods for Neuroimaging: Examples, Challenges, and Extensions to Diffusion Imaging Data. <i>Mathematics and Visualization</i> , 2015, , 299-319.	0.6	3
83	Superficial white matter microstructure affects processing speed in cerebral small vessel disease. <i>Human Brain Mapping</i> , 2022, 43, 5310-5325.	3.6	3
84	Mapping Cerebral Connectivity Changes after Mild Traumatic Brain Injury in Older Adults Using Diffusion Tensor Imaging and Riemannian Matching of Elastic Curves. , 2020, , .		2
85	Capturing Brain Deformation. <i>Lecture Notes in Computer Science</i> , 2003, , 203-217.	1.3	2
86	Reconstruction of 3D Muscle Fiber Structure Using High Resolution Cryosectioned Volume. <i>Lecture Notes in Computer Science</i> , 2018, , 85-94.	1.3	1
87	Mapping Eloquent Brain with Functional MRI and DTI. , 2016, , 41-62.		1
88	T201. THE STUDY OF WHITE MATTER MATURATION IN THREE POPULATIONS OF GENETIC HIGH RISK FOR SCHIZOPHRENIA INDIVIDUALS SPANNING THE DEVELOPMENTAL TIMELINE. <i>Schizophrenia Bulletin</i> , 2018, 44, S194-S195.	4.3	0
89	T86. DIFFUSION MAGNETIC RESONANCE IMAGING FIBER CLUSTER ANALYSIS OF THE ANATOMIC ORGANIZATION OF FRONTOSTRIATAL STRUCTURAL CONNECTIVITY IN HEALTHY SUBJECTS. <i>Schizophrenia Bulletin</i> , 2019, 45, S236-S237.	4.3	0
90	Supra-Threshold Fiber Cluster Statistics for Data-Driven Whole Brain Tractography Analysis. <i>Lecture Notes in Computer Science</i> , 2017, , 556-565.	1.3	0

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91	Spatial Sparse Estimation of Fiber Orientation Distribution Using Deep Alternating Directions Method of Multipliers Network. <i>Mathematics and Visualization</i> , 2020, , 79-89.	0.6	0
92	Editorial for "Early Onset Micromorphological Changes of Neuronal Fiber Bundles During Radiotherapy". <i>Journal of Magnetic Resonance Imaging</i> , 2022, 56, 219-220.	3.4	0
93	P656. Psychological Functioning, Neurosteroids, and White Matter Microstructure in the Context of Post-Traumatic Stress Disorder and Mild Traumatic Brain Injury. <i>Biological Psychiatry</i> , 2022, 91, S355-S356.	1.3	0