

# 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	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
2	Older age, male sex, and cerebral microbleeds predict white matter loss after traumatic brain injury. <i>GeroScience</i> , 2022, 44, 83-102.	4.6	11
3	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
4	Deep Diffusion MRI Registration (DDMReg): A Deep Learning Method for Diffusion MRI Registration. <i>IEEE Transactions on Medical Imaging</i> , 2022, 41, 1454-1467.	8.9	10
5	Quantitative mapping of the brain's structural connectivity using diffusion MRI tractography: A review. <i>NeuroImage</i> , 2022, 249, 118870.	4.2	95
6	DSNet: A Dual-Stream Framework for Weakly-Supervised Gigapixel Pathology Image Analysis. <i>IEEE Transactions on Medical Imaging</i> , 2022, 41, 2180-2190.	8.9	10
7	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
8	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
9	Supwma: Consistent and Efficient Tractography Parcellation of Superficial White Matter with Deep Learning. , 2022, , .		7
10	Model and Predict Age and Sex in Healthy Subjects Using Brain White Matter Features: A Deep Learning Approach. , 2022, , .		4
11	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
12	Superficial white matter microstructure affects processing speed in cerebral small vessel disease. <i>Human Brain Mapping</i> , 2022, 43, 5310-5325.	3.6	3
13	PDAM: A Panoptic-Level Feature Alignment Framework for Unsupervised Domain Adaptive Instance Segmentation in Microscopy Images. <i>IEEE Transactions on Medical Imaging</i> , 2021, 40, 154-165.	8.9	46
14	Image registration: Maximum likelihood, minimum entropy and deep learning. <i>Medical Image Analysis</i> , 2021, 69, 101939.	11.6	13
15	Deep Fiber Clustering: Anatomically Informed Unsupervised Deep Learning for Fast and Effective White Matter Parcellation. <i>Lecture Notes in Computer Science</i> , 2021, , 497-507.	1.3	9
16	FiberStars: Visual Comparison of Diffusion Tractography Data between Multiple Subjects. , 2021, , .		3
17	Celltrack R-CNN: A Novel End-To-End Deep Neural Network For Cell Segmentation And Tracking In Microscopy Images. , 2021, , .		7
18	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

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19	Sex-Related Differences in White Matter Asymmetry and Its Implications for Verbal Working Memory in Psychosis High-Risk State. <i>Frontiers in Psychiatry</i> , 2021, 12, 686967.	2.6	7
20	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
21	Deep learning based segmentation of brain tissue from diffusion MRI. <i>NeuroImage</i> , 2021, 233, 117934.	4.2	36
22	Tractography dissection variability: What happens when 42 groups dissect 14 white matter bundles on the same dataset?. <i>NeuroImage</i> , 2021, 243, 118502.	4.2	94
23	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
24	Support vector regression. , 2020, , 123-140.		67
25	3D Exploration of the Brainstem in 50-Micron Resolution MRI. <i>Frontiers in Neuroanatomy</i> , 2020, 14, 40.	1.7	13
26	Investigation of local white matter abnormality in Parkinson's disease by using an automatic fiber tract parcellation. <i>Behavioural Brain Research</i> , 2020, 394, 112805.	2.2	14
27	Mapping Cerebral Connectivity Changes after Mild Traumatic Brain Injury in Older Adults Using Diffusion Tensor Imaging and Riemannian Matching of Elastic Curves. , 2020, , .		2
28	SlicerDMRI: Diffusion MRI and Tractography Research Software for Brain Cancer Surgery Planning and Visualization. <i>JCO Clinical Cancer Informatics</i> , 2020, 4, 299-309.	2.1	52
29	Creation of a novel trigeminal tractography atlas for automated trigeminal nerve identification. <i>NeuroImage</i> , 2020, 220, 117063.	4.2	17
30	Deep white matter analysis (DeepWMA): Fast and consistent tractography segmentation. <i>Medical Image Analysis</i> , 2020, 65, 101761.	11.6	57
31	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
32	TRAKO: Efficient Transmission of Tractography Data for Visualization. <i>Lecture Notes in Computer Science</i> , 2020, 12267, 322-332.	1.3	3
33	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
34	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
35	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
36	Test-retest reproducibility of white matter parcellation using diffusion MRI tractography fiber clustering. <i>Human Brain Mapping</i> , 2019, 40, 3041-3057.	3.6	61

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37	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
38	Post-Traumatic Cerebral Microhemorrhages and their Effects Upon White Matter Connectivity in the Aging Human Brain. , 2019, 2019, 198-203.		4
39	Advances in computational and statistical diffusion MRI. <i>NMR in Biomedicine</i> , 2019, 32, e3805.	2.8	17
40	Utilizing Mutual Information Analysis to Explore the Relationship Between Gray and White Matter Structural Pathologies in Schizophrenia. <i>Schizophrenia Bulletin</i> , 2019, 45, 386-395.	4.3	7
41	Deep White Matter Analysis: Fast, Consistent Tractography Segmentation Across Populations and dMRI Acquisitions. <i>Lecture Notes in Computer Science</i> , 2019, 11766, 599-608.	1.3	10
42	Reconstruction of 3D Muscle Fiber Structure Using High Resolution Cryosectioned Volume. <i>Lecture Notes in Computer Science</i> , 2018, , 85-94.	1.3	1
43	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
44	Suprathreshold fiber cluster statistics: Leveraging white matter geometry to enhance tractography statistical analysis. <i>NeuroImage</i> , 2018, 171, 341-354.	4.2	26
45	Whole brain white matter connectivity analysis using machine learning: An application to autism. <i>NeuroImage</i> , 2018, 172, 826-837.	4.2	70
46	Brain-Behavior Participant Similarity Networks Among Youth and Emerging Adults with Schizophrenia Spectrum, Autism Spectrum, or Bipolar Disorder and Matched Controls. <i>Neuropsychopharmacology</i> , 2018, 43, 1180-1188.	5.4	45
47	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
48	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
49	Genetic load determines atrophy in hand cortico-striatal pathways in presymptomatic Huntington's disease. <i>Human Brain Mapping</i> , 2018, 39, 3871-3883.	3.6	13
50	An anatomically curated fiber clustering white matter atlas for consistent white matter tract parcellation across the lifespan. <i>NeuroImage</i> , 2018, 179, 429-447.	4.2	146
51	Investigation into local white matter abnormality in emotional processing and sensorimotor areas using an automatically annotated fiber clustering in major depressive disorder. <i>NeuroImage</i> , 2018, 181, 16-29.	4.2	34
52	Free water modeling of peritumoral edema using multi-fiber tractography: Application to tracking the arcuate fasciculus for neurosurgical planning. <i>PLoS ONE</i> , 2018, 13, e0197056.	2.5	40
53	Longitudinal diffusion changes in prodromal and early <sc>HD</sc>: Evidence of white-matter tract deterioration. <i>Human Brain Mapping</i> , 2017, 38, 1460-1477.	3.6	45
54	SlicerDMRI: Open Source Diffusion MRI Software for Brain Cancer Research. <i>Cancer Research</i> , 2017, 77, e101-e103.	0.9	89

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55	White matter tractography for neurosurgical planning: A topography-based review of the current state of the art. <i>NeuroImage: Clinical</i> , 2017, 15, 659-672.	2.7	162
56	Automated connectivity-based groupwise cortical atlas generation: Application to data of neurosurgical patients with brain tumors for cortical parcellation prediction. , 2017, , .		5
57	Comparison between two white matter segmentation strategies: An investigation into white matter segmentation consistency. , 2017, , .		7
58	Performance of unscented Kalman filter tractography in edema: Analysis of the two-tensor model. <i>NeuroImage: Clinical</i> , 2017, 15, 819-831.	2.7	37
59	Automated white matter fiber tract identification in patients with brain tumors. <i>NeuroImage: Clinical</i> , 2017, 13, 138-153.	2.7	109
60	Locally-Transferred Fisher Vectors for Texture Classification. , 2017, , .		31
61	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
62	Fiber clustering based white matter connectivity analysis for prediction of Autism Spectrum Disorder using diffusion tensor imaging. , 2016, , .		8
63	Corticospinal tract modeling for neurosurgical planning by tracking through regions of peritumoral edema and crossing fibers using two-tensor unscented Kalman filter tractography. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2016, 11, 1475-1486.	2.8	42
64	Increasing the impact of medical image computing using community-based open-access hackathons: The NA-MIC and 3D Slicer experience. <i>Medical Image Analysis</i> , 2016, 33, 176-180.	11.6	58
65	Right inferior longitudinal fasciculus lesions disrupt visual-emotional integration. <i>Social Cognitive and Affective Neuroscience</i> , 2016, 11, 945-951.	3.0	22
66	Q-space trajectory imaging for multidimensional diffusion MRI of the human brain. <i>NeuroImage</i> , 2016, 135, 345-362.	4.2	256
67	Mapping Eloquent Brain with Functional MRI and DTI. , 2016, , 41-62.		1
68	Sparse Reconstruction Challenge for diffusion MRI: Validation on a physical phantom to determine which acquisition scheme and analysis method to use?. <i>Medical Image Analysis</i> , 2015, 26, 316-331.	11.6	78
69	Does diffusion MRI tell us anything about the white matter? An overview of methods and pitfalls. <i>Schizophrenia Research</i> , 2015, 161, 133-141.	2.0	86
70	Reconstruction of the arcuate fasciculus for surgical planning in the setting of peritumoral edema using two-tensor unscented Kalman filter tractography. <i>NeuroImage: Clinical</i> , 2015, 7, 815-822.	2.7	60
71	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
72	Fiber clustering versus the parcellation-based connectome. <i>NeuroImage</i> , 2013, 80, 283-289.	4.2	80

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73	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
74	fMRI-DTI modeling via landmark distance atlases for prediction and detection of fiber tracts. <i>NeuroImage</i> , 2012, 60, 456-470.	4.2	20
75	Unbiased Groupwise Registration of White Matter Tractography. <i>Lecture Notes in Computer Science</i> , 2012, 15, 123-130.	1.3	59
76	Fiber geometry in the corpus callosum in schizophrenia: Evidence for transcallosal misconnection. <i>Schizophrenia Research</i> , 2011, 132, 69-74.	2.0	21
77	An Introduction to Diffusion Tensor Image Analysis. <i>Neurosurgery Clinics of North America</i> , 2011, 22, 185-196.	1.7	327
78	Corpus Callosum Abnormalities and Their Association with Psychotic Symptoms in Patients with Schizophrenia. <i>Biological Psychiatry</i> , 2010, 68, 70-77.	1.3	169
79	A combined fMRI and DTI examination of functional language lateralization and arcuate fasciculus structure: Effects of degree versus direction of hand preference. <i>Brain and Cognition</i> , 2010, 73, 85-92.	1.8	100
80	The Fiber Laterality Histogram: A New Way to Measure White Matter Asymmetry. <i>Lecture Notes in Computer Science</i> , 2010, 13, 225-232.	1.3	8
81	Resolving crossings in the corticospinal tract by two-tensor streamline tractography: Method and clinical assessment using fMRI. <i>NeuroImage</i> , 2009, 47, T98-T106.	4.2	95
82	Tract-based morphometry for white matter group analysis. <i>NeuroImage</i> , 2009, 45, 832-844.	4.2	168
83	Quantitative examination of a novel clustering method using magnetic resonance diffusion tensor tractography. <i>NeuroImage</i> , 2009, 45, 370-376.	4.2	46
84	Tract-Based Morphometry. , 2007, , 161-168.		9
85	Automatic Tractography Segmentation Using a High-Dimensional White Matter Atlas. <i>IEEE Transactions on Medical Imaging</i> , 2007, 26, 1562-1575.	8.9	342
86	Nonlinear Registration of Diffusion MR Images Based on Fiber Bundles. , 2007, 10, 351-358.		39
87	Tract-based morphometry. , 2007, 10, 161-8.		5
88	High-Dimensional White Matter Atlas Generation and Group Analysis. <i>Lecture Notes in Computer Science</i> , 2006, , 243-251.	1.3	9
89	Capturing Brain Deformation. <i>Lecture Notes in Computer Science</i> , 2003, , 203-217.	1.3	2
90	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

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91	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
92	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
93	Phase-Based User-Steered Image Segmentation. Lecture Notes in Computer Science, 2001, , 1022-1030.	1.3	12