

Carl-Fredrik Westin

List of Publications by Year in descending order

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Version: 2024-02-01

73
papers

4,093
citations

257101
24
h-index

133063
59
g-index

76
all docs

76
docs citations

76
times ranked

4503
citing authors

#	ARTICLE	IF	CITATIONS
1	The association of matrix metalloproteinase 9 (MMP9) with hippocampal volume in schizophrenia: a preliminary MRI study. Neuropsychopharmacology, 2022, 47, 524-530.	2.8	10
2	Histogram analysis of tensor-valued diffusion MRI in meningiomas: Relation to consistency, histological grade and type. Neurolmage: Clinical, 2022, 33, 102912.	1.4	11
3	Accelerating joint relaxationâ€diffusion MRI by integrating time division multiplexing and simultaneous multiâ€slice (TDMâ€SMS) strategies. Magnetic Resonance in Medicine, 2022, 87, 2697-2709.	1.9	3
4	Separating Glioma Hyperintensities From White Matter by Diffusion-Weighted Imaging With Spherical Tensor Encoding. Frontiers in Neuroscience, 2022, 16, 842242.	1.4	0
5	Motionâ€compensated gradient waveforms for tensorâ€valued diffusion encoding by constrained numerical optimization. Magnetic Resonance in Medicine, 2021, 85, 2117-2126.	1.9	23
6	Gradient waveform design for tensor-valued encoding in diffusion MRI. Journal of Neuroscience Methods, 2021, 348, 109007.	1.3	44
7	Elucidating the relationship between white matter structure, demographic, and clinical variables in schizophreniaâ€a multicenter harmonized diffusion tensor imaging study. Molecular Psychiatry, 2021, 26, 5357-5370.	4.1	17
8	Probing tissue microstructure by diffusion skewness tensor imaging. Scientific Reports, 2021, 11, 135.	1.6	6
9	Characterization Of Spatial Dynamics Of Fmri Data In White Matter Using Diffusion-Informed White Matter Harmonics. , 2021, 2021, 1586-1590.		1
10	SNRâ€enhanced diffusion MRI with structureâ€preserving lowâ€rank denoising in reproducing kernel Hilbert spaces. Magnetic Resonance in Medicine, 2021, 86, 1614-1632.	1.9	13
11	Mapping prostatic microscopic anisotropy using linear and spherical bâ€tensor encoding: A preliminary study. Magnetic Resonance in Medicine, 2021, 86, 2025-2033.	1.9	12
12	Deep learning based segmentation of brain tissue from diffusion MRI. Neurolmage, 2021, 233, 117934.	2.1	36
13	Combined diffusionâ€relaxometry microstructure imaging: Current status and future prospects. Magnetic Resonance in Medicine, 2021, 86, 2987-3011.	1.9	46
14	Diffusion-informed spatial smoothing of fMRI data in white matter using spectral graph filters. Neurolmage, 2021, 237, 118095.	2.1	22
15	Q-space trajectory imaging with positivity constraints (QTI+). Neurolmage, 2021, 238, 118198.	2.1	10
16	Neural networks for parameter estimation in microstructural MRI: Application to a diffusion-relaxation model of white matter. Neurolmage, 2021, 244, 118601.	2.1	20
17	Orthogonal projections for image quality analyses applied to MRI. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000159.	0.2	0
18	Accuracy and precision in super-resolution MRI: Enabling spherical tensor diffusion encoding at ultra-high b-values and high resolution. Neurolmage, 2021, 245, 118673.	2.1	11

#	ARTICLE	IF	CITATIONS
19	Cortical Surface-Informed Volumetric Spatial Smoothing of fMRI Data via Graph Signal Processing. , 2021, 2021, 3804-3808.		2
20	Tensor-valued diffusion MRI in under 3 minutes: an initial survey of microscopic anisotropy and tissue heterogeneity in intracranial tumors. Magnetic Resonance in Medicine, 2020, 83, 608-620.	1.9	55
21	Fast and accurate initialization of the free-water imaging model parameters from multi-shell diffusion MRI. NMR in Biomedicine, 2020, 33, e4219.	1.6	14
22	Towards unconstrained compartment modeling in white matter using diffusion-relaxation MRI with tensor-valued diffusion encoding. Magnetic Resonance in Medicine, 2020, 84, 1605-1623.	1.9	67
23	NIMG-16. EXPLORATORY EVALUATION OF Q-SPACE TRAJECTORY IMAGING PARAMETERS AS NOVEL IMAGING BIOMARKERS FOR GLIOMAS. Neuro-Oncology, 2020, 22, ii150-ii150.	0.6	1
24	Striato-nigro-striatal tract dispersion abnormalities in patients with chronic schizophrenia. Brain Imaging and Behavior, 2019, 13, 1236-1245.	1.1	4
25	Linear, planar and spherical tensor-valued diffusion MRI data by free waveform encoding in healthy brain, water, oil and liquid crystals. Data in Brief, 2019, 25, 104208.	0.5	24
26	Maxwell-compensated design of asymmetric gradient waveforms for tensor-valued diffusion encoding. Magnetic Resonance in Medicine, 2019, 82, 1424-1437.	1.9	81
27	Searching for the neurite density with diffusion MRI: Challenges for biophysical modeling. Human Brain Mapping, 2019, 40, 2529-2545.	1.9	103
28	White matter tracing combined with electric field simulation – A patient-specific approach for deep brain stimulation. NeuroImage: Clinical, 2019, 24, 102026.	1.4	16
29	Limits to anatomical accuracy of diffusion tractography using modern approaches. NeuroImage, 2019, 185, 1-11.	2.1	200
30	Utilizing Mutual Information Analysis to Explore the Relationship Between Gray and White Matter Structural Pathologies in Schizophrenia. Schizophrenia Bulletin, 2019, 45, 386-395.	2.3	7
31	Cumulant expansions for measuring water exchange using diffusion MRI. Journal of Chemical Physics, 2018, 148, 074109.	1.2	26
32	Liquid crystal phantom for validation of microscopic diffusion anisotropy measurements on clinical MRI systems. Magnetic Resonance in Medicine, 2018, 79, 1817-1828.	1.9	18
33	A comparison of three fiber tract delineation methods and their impact on white matter analysis. NeuroImage, 2018, 178, 318-331.	2.1	32
34	Separating blood and water: Perfusion and free water elimination from diffusion MRI in the human brain. NeuroImage, 2017, 156, 423-434.	2.1	46
35	Quantifying the brain's sheet structure with normalized convolution. Medical Image Analysis, 2017, 39, 162-177.	7.0	15
36	The challenge of mapping the human connectome based on diffusion tractography. Nature Communications, 2017, 8, 1349.	5.8	956

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37	Precise Inference and Characterization of Structural Organization (PICASO) of tissue from molecular diffusion. <i>NeuroImage</i> , 2017, 146, 452-473.	2.1	17
38	New insights about time-varying diffusivity and its estimation from diffusion MRI. <i>Magnetic Resonance in Medicine</i> , 2017, 78, 763-774.	1.9	11
39	Estimation of Bounded and Unbounded Trajectories in Diffusion MRI. <i>Frontiers in Neuroscience</i> , 2016, 10, 129.	1.4	3
40	Fiber clustering based white matter connectivity analysis for prediction of Autism Spectrum Disorder using diffusion tensor imaging. , 2016, , .		8
41	The link between diffusion MRI and tumor heterogeneity: Mapping cell eccentricity and density by diffusional variance decomposition (DIVIDE). <i>NeuroImage</i> , 2016, 142, 522-532.	2.1	141
42	Conventions and nomenclature for double diffusion encoding NMR and MRI. <i>Magnetic Resonance in Medicine</i> , 2016, 75, 82-87.	1.9	154
43	Sheet Probability Index (SPI): Characterizing the geometrical organization of the white matter with diffusion MRI. <i>NeuroImage</i> , 2016, 142, 260-279.	2.1	17
44	NMR signal for particles diffusing under potentials: From path integrals and numerical methods to a model of diffusion anisotropy. <i>Physical Review E</i> , 2016, 93, 052602.	0.8	21
45	Adjugate Diffusion Tensors for Geodesic Tractography in White Matter. <i>Journal of Mathematical Imaging and Vision</i> , 2016, 54, 1-14.	0.8	24
46	The white matter query language: a novel approach for describing human white matter anatomy. <i>Brain Structure and Function</i> , 2016, 221, 4705-4721.	1.2	170
47	A joint compressed-sensing and super-resolution approach for very high-resolution diffusion imaging. <i>NeuroImage</i> , 2016, 125, 386-400.	2.1	49
48	Q-space trajectory imaging for multidimensional diffusion MRI of the human brain. <i>NeuroImage</i> , 2016, 135, 345-362.	2.1	256
49	NMR diffusion-encoding with axial symmetry and variable anisotropy: Distinguishing between prolate and oblate microscopic diffusion tensors with unknown orientation distribution. <i>Journal of Chemical Physics</i> , 2015, 142, 104201.	1.2	70
50	The DTI Challenge: Toward Standardized Evaluation of Diffusion Tensor Imaging Tractography for Neurosurgery. <i>Journal of Neuroimaging</i> , 2015, 25, 875-882.	1.0	147
51	Characterizing magnetic resonance signal decay due to gaussian diffusion: The path integral approach and a convenient computational method. <i>Concepts in Magnetic Resonance Part A: Bridging Education and Research</i> , 2015, 44, 203-213.	0.2	8
52	Sparse deconvolution of higher order tensor for fiber orientation distribution estimation. <i>Artificial Intelligence in Medicine</i> , 2015, 65, 229-238.	3.8	5
53	Constrained optimization of gradient waveforms for generalized diffusion encoding. <i>Journal of Magnetic Resonance</i> , 2015, 261, 157-168.	1.2	106
54	The extent of diffusion MRI markers of neuroinflammation and white matter deterioration in chronic schizophrenia. <i>Schizophrenia Research</i> , 2015, 161, 113-118.	1.1	115

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55	Abnormal white matter connections between medial frontal regions predict symptoms in patients with first episode schizophrenia. Cortex, 2015, 71, 264-276.	1.1	20
56	Quantification of microscopic diffusion anisotropy disentangles effects of orientation dispersion from microstructure: Applications in healthy volunteers and in brain tumors. NeuroImage, 2015, 104, 241-252.	2.1	216
57	Widespread white matter degeneration preceding the onset of dementia. Alzheimer's and Dementia, 2015, 11, 485.	0.4	67
58	Fusion of white and gray matter geometry: A framework for investigating brain development. Medical Image Analysis, 2014, 18, 1349-1360.	7.0	22
59	Localized abnormalities in the cingulum bundle in patients with schizophrenia: A Diffusion Tensor tractography study. NeuroImage: Clinical, 2014, 5, 93-99.	1.4	57
60	Diffusion Propagator Estimation from Sparse Measurements in a Tractography Framework. Lecture Notes in Computer Science, 2013, 16, 510-517.	1.0	22
61	Tensor Metrics and Charged Containers for 3D Q-space Sample Distribution. Lecture Notes in Computer Science, 2013, 16, 679-686.	1.0	9
62	Combining Surface and Fiber Geometry: An Integrated Approach to Brain Morphology. Lecture Notes in Computer Science, 2013, 16, 50-57.	1.0	2
63	Multi-affine registration using local polynomial expansion. Journal of Zhejiang University: Science C, 2010, 11, 495-503.	0.7	2
64	Connectivity concepts in diffusion and functional MRI. , 2010, , .		0
65	Two-tensor streamline tractography through white matter intra-voxel fiber crossings: Assessed by fMRI. , 2008, , .		1
66	Guest Editorial Special Issue on Computational Diffusion MRI. IEEE Transactions on Medical Imaging, 2007, 26, 1425-1427.	5.4	0
67	Intrinsic and Extrinsic Means on the Circle - A Maximum Likelihood Interpretation. , 2007, , .		2
68	Fiber Tract Clustering on Manifolds With Dual Rooted-Graphs. , 2007, , .		28
69	Spatially Varying Classification with Localization Certainty in Level Set Segmentation. , 2007, , .		0
70	TWO-TENSOR FIBER TRACTOGRAPHY. , 2007, , .		11
71	Image Quality Assessment based on Local Variance. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	13
72	On Diffusion Tensor Estimation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0

#	ARTICLE	IF	CITATIONS
73	Multi-component apparent diffusion coefficients in human brain. NMR in Biomedicine, 1999, 12, 51-62.	1.6	339