Sune N Jespersen

List of Publications by Citations

93 papers	4,349 citations	37 h-index	64 g-index
98 ext. papers	5,232 ext. citations	5 avg, IF	6.06 L-index

#	Paper	IF	Citations
93	The roles of cerebral blood flow, capillary transit time heterogeneity, and oxygen tension in brain oxygenation and metabolism. *Journal of Cerebral Blood Flow and Metabolism*, **2012**, 32, 264-77	7.3	298
92	Lv̈y flights in external force fields: Langevin and fractional Fokker-Planck equations and their solutions. *Physical Review E*, **1999**, 59, 2736-2745	2.4	295
91	Modeling dendrite density from magnetic resonance diffusion measurements. *NeuroImage*, **2007**, 34, 1473-86	7.9	255
90	Neurite density from magnetic resonance diffusion measurements at ultrahigh field: comparison with light microscopy and electron microscopy. *NeuroImage*, **2010**, 49, 205-16	7.9	209
89	Quantifying brain microstructure with diffusion MRI: Theory and parameter estimation. *NMR in Biomedicine*, **2019**, 32, e3998	4.4	197
88	On modeling. *Magnetic Resonance in Medicine*, **2018**, 79, 3172-3193	4.4	179
87	Orientationally invariant metrics of apparent compartment eccentricity from double pulsed field gradient diffusion experiments. *NMR in Biomedicine*, **2013**, 26, 1647-62	4.4	141
86	The capillary dysfunction hypothesis of Alzheimer Ƭs disease. *Neurobiology of Aging*, **2013**, 34, 1018-31	5.6	131
85	Conventions and nomenclature for double diffusion encoding NMR and MRI. *Magnetic Resonance in Medicine*, **2016**, 75, 82-7	4.4	123
84	Determination of axonal and dendritic orientation distributions within the developing cerebral cortex by diffusion tensor imaging. *IEEE Transactions on Medical Imaging*, **2012**, 31, 16-32	11.7	112
83	The relationship between tumor blood flow, angiogenesis, tumor hypoxia, and aerobic glycolysis. *Cancer Research*, **2013**, 73, 5618-24	10.1	100
82	The role of the cerebral capillaries in acute ischemic stroke: the extended penumbra model. *Journal of Cerebral Blood Flow and Metabolism*, **2013**, 33, 635-48	7.3	98
81	Experimentally and computationally fast method for estimation of a mean kurtosis. *Magnetic Resonance in Medicine*, **2013**, 69, 1754-60	4.4	89
80	Small-world networks: links with long-tailed distributions. *Physical Review E*, **2000**, 62, 6270-4	2.4	83
79	Capillary transit time heterogeneity and flow-metabolism coupling after traumatic brain injury. *Journal of Cerebral Blood Flow and Metabolism*, **2014**, 34, 1585-98	7.3	80
78	Relaxation properties of small-world networks. *Physical Review E*, **2000**, 62, 4405-8	2.4	68
77	Equivalence of double and single wave vector diffusion contrast at low diffusion weighting. *NMR in Biomedicine*, **2012**, 25, 813-8	4.4	67

76	Reliable estimation of capillary transit time distributions using DSC-MRI. *Journal of Cerebral Blood Flow and Metabolism*, **2014**, 34, 1511-21	7.3	63
75	Mean Diffusional Kurtosis in Patients with Glioma: Initial Results with a Fast Imaging Method in a Clinical Setting. *American Journal of Neuroradiology*, **2015**, 36, 1472-8	4.4	60
74	Diffusion time dependence of microstructural parameters in fixed spinal cord. *NeuroImage*, **2018**, 182, 329-342	7.9	56
73	3D structure tensor analysis of light microscopy data for validating diffusion MRI. *NeuroImage*, **2015**, 111, 192-203	7.9	53
72	The effects of capillary transit time heterogeneity (CTH) on brain oxygenation. *Journal of Cerebral Blood Flow and Metabolism*, **2015**, 35, 806-17	7.3	53
71	Precision and accuracy of diffusion kurtosis estimation and the influence of b-value selection. *NMR in Biomedicine*, **2017**, 30, e3777	4.4	52
70	Small-world Rouse networks as models of cross-linked polymers. *Journal of Chemical Physics*, **2000**, 113, 7652-7655	3.9	49
69	The effects of transit time heterogeneity on brain oxygenation during rest and functional activation. *Journal of Cerebral Blood Flow and Metabolism*, **2015**, 35, 432-42	7.3	48
68	Increased cortical capillary transit time heterogeneity in Alzheimer's disease: a DSC-MRI perfusion study. *Neurobiology of Aging*, **2017**, 50, 107-118	5.6	47
67	The effects of capillary dysfunction on oxygen and glucose extraction in diabetic neuropathy. *Diabetologia*, **2015**, 58, 666-77	10.3	46
66	Capillary dysfunction: its detection and causative role in dementias and stroke. *Current Neurology and Neuroscience Reports*, **2015**, 15, 37	6.6	45
65	Experimental considerations for fast kurtosis imaging. *Magnetic Resonance in Medicine*, **2016**, 76, 1455-1468	4.4	43
64	Microscopic anisotropy misestimation in spherical-mean single diffusion encoding MRI. *Magnetic Resonance in Medicine*, **2019**, 81, 3245-3261	4.4	43
63	Effects of nongaussian diffusion on "isotropic diffusion" measurements: An ex-vivo microimaging and simulation study. *Journal of Magnetic Resonance*, **2019**, 300, 84-94	3	42
62	Effect of electrical forepaw stimulation on capillary transit-time heterogeneity (CTH). *Journal of Cerebral Blood Flow and Metabolism*, **2016**, 36, 2072-2086	7.3	42
61	Diffusion tensor imaging detects early cerebral cortex abnormalities in neuronal architecture induced by bilateral neonatal enucleation: an experimental model in the ferret. *Frontiers in Systems Neuroscience*, **2010**, 4, 149	3.5	42
60	Fast imaging of mean, axial and radial diffusion kurtosis. *NeuroImage*, **2016**, 142, 381-393	7.9	41
59	Kurtosis fractional anisotropy, its contrast and estimation by proxy. *Scientific Reports*, **2016**, 6, 23999	4.9	41

58	Biophysical modeling of high field diffusion MRI demonstrates micro-structural aberration in chronic mild stress rat brain. *NeuroImage*, **2016**, 142, 421-430	7.9	41
57	The role of capillary transit time heterogeneity in myocardial oxygenation and ischemic heart disease. *Basic Research in Cardiology*, **2014**, 109, 409	11.8	38
56	Resolving degeneracy in diffusion MRI biophysical model parameter estimation using double diffusion encoding. *Magnetic Resonance in Medicine*, **2019**, 82, 395-410	4.4	37
55	Diffusion-weighted MRI and quantitative biophysical modeling of hippocampal neurite loss in chronic stress. *PLoS ONE*, **2011**, 6, e20653	3.7	34
54	Apparent diffusion coefficients in GEC ESTRO target volumes for image guided adaptive brachytherapy of locally advanced cervical cancer. *Acta Oncologica*, **2010**, 49, 978-83	3.2	34
53	Microcirculatory dysfunction and tissue oxygenation in critical illness. *Acta Anaesthesiologica Scandinavica*, **2015**, 59, 1246-59	1.9	33
52	Intravenous administration of Gd-DTPA prior to DWI does not affect the apparent diffusion constant. *Magnetic Resonance Imaging*, **2005**, 23, 685-9	3.3	33
51	Accurate estimation of microscopic diffusion anisotropy and its time dependence in the mouse brain. *NeuroImage*, **2018**, 183, 934-949	7.9	33
50	The displacement correlation tensor: microstructure, ensemble anisotropy and curving fibers. *Journal of Magnetic Resonance*, **2011**, 208, 34-43	3	31
49	Neurovascular coupling during cortical spreading depolarization and -depression. *Stroke*, **2015**, 46, 1392-401	6.9	30
48	Correlation tensor magnetic resonance imaging. *NeuroImage*, **2020**, 211, 116605	7.9	29
47	The effect of crack cocaine addiction and age on the microstructure and morphology of the human striatum and thalamus using shape analysis and fast diffusion kurtosis imaging. *Translational Psychiatry*, **2017**, 7, e1122	8.6	28
46	White matter biomarkers from fast protocols using axially symmetric diffusion kurtosis imaging. *NMR in Biomedicine*, **2017**, 30, e3741	4.4	27
45	Nondestructive detection of internal bruise and spraing disease symptoms in potatoes using magnetic resonance imaging. *Magnetic Resonance Imaging*, **2004**, 22, 1311-7	3.3	26
44	Recent Developments in Fast Kurtosis Imaging. *Frontiers in Physics*, **2017**, 5,	3.9	25
43	Microstructural changes in the thalamus after mild traumatic brain injury: A longitudinal diffusion and mean kurtosis tensor MRI study. *Brain Injury*, **2017**, 31, 230-236	2.1	24
42	Fast diffusion kurtosis imaging of fibrotic mouse kidneys. *NMR in Biomedicine*, **2016**, 29, 1709-1719	4.4	24
41	Diffusion MRI and MR spectroscopy reveal microstructural and metabolic brain alterations in chronic mild stress exposed rats: A CMS recovery study. *NeuroImage*, **2018**, 167, 342-353	7.9	24

40	Evaluation of principal component analysis image denoising on multi-exponential MRI relaxometry. *Magnetic Resonance in Medicine*, **2019**, 81, 3503-3514	4.4	23
39	Anomalous diffusion and relaxation in macromolecular systems. *Journal of Non-Crystalline Solids*, **2002**, 305, 71-80	3.9	21
38	The impact of realistic axonal shape on axon diameter estimation using diffusion MRI. *NeuroImage*, **2020**, 223, 117228	7.9	21
37	White matter biomarkers from diffusion MRI. *Journal of Magnetic Resonance*, **2018**, 291, 127-140	3	19
36	Using diffusion anisotropy to characterize neuronal morphology in gray matter: the orientation distribution of axons and dendrites in the NeuroMorpho.org database. *Frontiers in Integrative Neuroscience*, **2013**, 7, 31	3.2	19
35	Transit time homogenization in ischemic stroke - A novel biomarker of penumbral microvascular failure?. *Journal of Cerebral Blood Flow and Metabolism*, **2018**, 38, 2006-2020	7.3	19
34	Mapping axonal density and average diameter using non-monotonic time-dependent gradient-echo MRI. *Journal of Magnetic Resonance*, **2017**, 277, 117-130	3	18
33	The effect of impermeable boundaries of arbitrary geometry on the apparent diffusion coefficient. *Journal of Magnetic Resonance*, **2008**, 194, 128-35	3	16
32	Evaluation of anti-vascular therapy with texture analysis. *Anticancer Research*, **2005**, 25, 3399-405	2.3	16
31	Data for evaluation of fast kurtosis strategies, b-value optimization and exploration of diffusion MRI contrast. *Scientific Data*, **2016**, 3, 160072	8.2	15
30	Commentary on Microanisotropy imaging: quantification of microscopic diffusion anisotropy and orientation of order parameter by diffusion MRI with magic-angle spinning of the q-vector. *Frontiers in Physics*, **2014**, 2,	3.9	15
29	Stroke infarct volume estimation in fixed tissue: Comparison of diffusion kurtosis imaging to diffusion weighted imaging and histology in a rodent MCAO model. *PLoS ONE*, **2018**, 13, e0196161	3.7	13
28	Correction of diffusion-weighted magnetic resonance imaging for brachytherapy of locally advanced cervical cancer. *Acta Oncologica*, **2014**, 53, 1073-8	3.2	13
27	Diffusion-weighted magnetic resonance imaging during radiotherapy of locally advanced cervical cancer--treatment response assessment using different segmentation methods. *Acta Oncologica*, **2015**, 54, 1535-42	3.2	12
26	Diffusion Kurtosis Imaging maps neural damage in the EAE model of multiple sclerosis. *NeuroImage* , **2020**, 208, 116406	7.9	12
25	The effects of capillary transit time heterogeneity on the BOLD signal. *Human Brain Mapping*, **2018**, 39, 2329-2352	5.9	11
24	Double diffusion encoding and applications for biomedical imaging. *Journal of Neuroscience Methods*, **2021**, 348, 108989	3	11
23	Summary of high field diffusion MRI and microscopy data demonstrate microstructural aberration in chronic mild stress rat brain. *Data in Brief*, **2016**, 8, 934-7	1.2	9

22	The influence of a cellular size distribution on NMR diffusion measurements. *European Biophysics Journal*, **2005**, 34, 890-8	1.9	9
21	Neurite atrophy in dorsal hippocampus of rat indicates incomplete recovery of chronic mild stress induced depression. *NMR in Biomedicine*, **2019**, 32, e4057	4.4	8
20	Differential microstructural alterations in rat cerebral cortex in a model of chronic mild stress depression. *PLoS ONE*, **2018**, 13, e0192329	3.7	8
19	Diffusion MRI findings in patients with extensive and minimal post-concussion symptoms after mTBI and healthy controls: a cross sectional study. *Brain Injury*, **2018**, 32, 91-98	2.1	8
18	Capillary dysfunction and impaired tissue oxygenation in complex regional pain syndrome: a hypothesis. *Pain*, **2014**, 155, 1922-1926	8	7
17	Toward more robust and reproducible diffusion kurtosis imaging. *Magnetic Resonance in Medicine*, **2021**, 86, 1600-1613	4.4	7
16	Diffusion time dependence, power-law scaling, and exchange in gray matter.. *NeuroImage*, **2022**, 251, 118976	7.9	6
15	The Effects of Capillary Transit Time Heterogeneity (CTH) on the Cerebral Uptake of Glucose and Glucose Analogs: Application to FDG and Comparison to Oxygen Uptake. *Frontiers in Computational Neuroscience*, **2016**, 10, 103	3.5	6
14	Optimal Experimental Design for Biophysical Modelling in Multidimensional Diffusion MRI. *Lecture Notes in Computer Science*, **2019**, 617-625	0.9	5
13	Beyond the diffusion standard model in fixed rat spinal cord with combined linear and planar encoding. *NeuroImage*, **2021**, 231, 117849	7.9	5
12	Heterogeneity of multiple sclerosis lesions in fast diffusional kurtosis imaging. *PLoS ONE*, **2021**, 16, e0245844	3.7	5
11	Comment on "Measuring small compartments with relatively weak gradients by angular double-pulsed-field-gradient NMR" by Morozov Bar, Sochen, and Cohen. *Magnetic Resonance Imaging*, **2013**, 31, 1643-4	3.3	4
10	Evidence for microscopic kurtosis in neural tissue revealed by correlation tensor MRI. *Magnetic Resonance in Medicine*, **2021**, 86, 3111-3130	4.4	4
9	Transport properties of incipient gels. *Physical Review E*, **2003**, 68, 021403	2.4	3
8	Cluster diffusion at the gelation point. *Physical Review E*, **2002**, 66, 031502	2.4	3
7	Microstructural and Metabolic Recovery of Anhedonic Rat Brains: An In Vivo Diffusion MRI and 1H-MRS Approach. *Data*, **2018**, 3, 29	2.3	2
6	Correlation Tensor MRI deciphers underlying kurtosis sources in stroke.. *NeuroImage*, **2021**, 247, 118833	7.9	2
5	Microstructural changes in the brain after long-term post-concussion symptoms: A randomized trial. *Journal of Neuroscience Research*, **2021**, 99, 872-886	4.4	2

4	Anomalous dynamics of model polymer systems. *Journal of Luminescence*, **2001**, 94-95, 437-440	3.8	1
3	Longitudinal, Multiparametric MRI Assessment of repetitive mild TBI in rats		1
2	Rapid microstructural plasticity in the cortical semantic network following a short language learning session. *PLoS Biology*, **2021**, 19, e3001290	9.7	0
1	Ballistic motion in quenched random environments. *Physica A: Statistical Mechanics and Its Applications*, **2001**, 297, 389-400	3.3	