Sheng-Kwei Song

List of Publications by Year
in descending order

89 papers	11,879 citations	81900 39 h-index	51608 86 g-index
95 all docs	95 docs citations	95 times ranked	11046 citing authors

#	Article	IF	Citations
1	Characterization of multiple sclerosis neuroinflammation and neurodegeneration with relaxation and diffusion basis spectrum imaging. Multiple Sclerosis Journal, 2022, 28, 418-428.	3.0	11
2	Analysis of combined clinical and diffusion basis spectrum imaging metrics to predict the outcome of chronic cervical spondylotic myelopathy following cervical decompression surgery. Journal of Neurosurgery: Spine, 2022, 37, 588-598.	1.7	2
3	The impact of edema and fiber crossing on diffusion MRI metrics assessed in an ex vivo nerve phantom: Multiâ€tensor model vs. diffusion orientation distribution function. NMR in Biomedicine, 2021, 34, e4414.	2.8	10
4	Non-invasive quantification of inflammation, axonal and myelin injury in multiple sclerosis. Brain, 2021, 144, 213-223.	7.6	27
5	Diffusion histology imaging differentiates distinct pediatric brain tumor histology. Scientific Reports, 2021, 11, 4749.	3.3	9
6	Nucleus accumbens microstructure mediates the relationship between obesity and eating behavior in adults. Obesity, 2021, 29, 1328-1337.	3.0	8
7	Diffusion basis spectrum imaging measures anti-inflammatory and neuroprotective effects of fingolimod on murine optic neuritis. NeuroImage: Clinical, 2021, 31, 102732.	2.7	4
8	Diffusion Histology Imaging Combining Diffusion Basis Spectrum Imaging (DBSI) and Machine Learning Improves Detection and Classification of Glioblastoma Pathology. Clinical Cancer Research, 2020, 26, 5388-5399.	7.0	18
9	Diffusion basis spectrum imaging provides insights into MS pathology. Neurology: Neuroimmunology and NeuroInflammation, 2020, 7, .	6.0	25
10	Deep learning with diffusion basis spectrum imaging for classification of multiple sclerosis lesions. Annals of Clinical and Translational Neurology, 2020, 7, 695-706.	3.7	32
11	Diffusion Basis Spectrum Imaging Detects Axonal Loss After Transient Dexamethasone Treatment in Optic Neuritis Mice. Frontiers in Neuroscience, 2020, 14, 592063.	2.8	3
12	Histopathological correlation of diffusion basis spectrum imaging metrics of a biopsy-proven inflammatory demyelinating brain lesion: A brief report. Multiple Sclerosis Journal, 2019, 25, 1937-1941.	3.0	18
13	Diffusion basis spectrum imaging for identifying pathologies in MS subtypes. Annals of Clinical and Translational Neurology, 2019, 6, 2323-2327.	3.7	17
14	Incorporating non-linear alignment and multi-compartmental modeling for improved human optic nerve diffusion imaging. NeuroImage, 2019, 196, 102-113.	4.2	6
15	Noninvasive Quantification of Axonal Loss in the Presence of Tissue Swelling in Traumatic Spinal Cord Injury Mice. Journal of Neurotrauma, 2019, 36, 2308-2315.	3.4	19
16	Neuroinflammation and White Matter Alterations in Obesity Assessed by Diffusion Basis Spectrum Imaging. Frontiers in Human Neuroscience, 2019, 13, 464.	2.0	56
17	Spinal Cord Injury Disrupts Resting-State Networks in the Human Brain. Journal of Neurotrauma, 2018, 35, 864-873.	3.4	51
18	Fractional anisotropy to quantify cervical spondylotic myelopathy severity. Journal of Neurosurgical Sciences, 2018, 62, 406-412.	0.6	14

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19	MRI-based assessment of function and dysfunction in myelinated axons. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E10225-E10234.	7.1	13
20	Diffusion Basis Spectrum and Diffusion Tensor Imaging Detect Hippocampal Inflammation and Dendritic Injury in a Virus-Induced Mouse Model of Epilepsy. Frontiers in Neuroscience, 2018, 12, 77.	2.8	23
21	Diffusion MRI quantifies early axonal loss in the presence of nerve swelling. Journal of Neuroinflammation, 2017, 14, 78.	7.2	39
22	Diffusion Basis Spectral Imaging Detects Ongoing Brain Inflammation in Virologically Well-Controlled HIV+ Patients. Journal of Acquired Immune Deficiency Syndromes (1999), 2017, 76, 423-430.	2.1	32
23	â€œA new imaging modality to non-invasively assess multiple sclerosis pathologyâ€. Journal of Neuroimmunology, 2017, 304, 81-85.	2.3	44
24	Diffusion Assessment of Cortical Changes, Induced by Traumatic Spinal Cord Injury. Brain Sciences, 2017, 7, 21.	2.3	28
25	Magnetic Resonance Imaging Biomarker of Axon Loss Reflects Cervical Spondylotic Myelopathy Severity. Spine, 2016, 41, 751-756.	2.0	32
26	Signalâ€toâ€noise ratioâ€enhancing joint reconstruction for improved diffusion imaging of mouse spinal cord white matter injury. Magnetic Resonance in Medicine, 2016, 75, 852-858.	3.0	9
27	Differentiation and quantification of inflammation, demyelination and axon injury or loss in multiple sclerosis. Brain, 2015, 138, 1223-1238.	7.6	133
28	Diffusion basis spectrum imaging detects and distinguishes coexisting subclinical inflammation, demyelination and axonal injury in experimental autoimmune encephalomyelitis mice. NMR in Biomedicine, 2014, 27, 843-852.	2.8	100
29	Manganeseâ€enhanced MRI (MEMRI) via topical loading of Mn²⁺ significantly impairs mouse visual acuity: a comparison with intravitreal injection. NMR in Biomedicine, 2014, 27, 390-398.	2.8	14
30	Optic Nerve Diffusion Tensor Imaging Parameters and Their Correlation With Optic Disc Topography and Disease Severity in Adult Glaucoma Patients and Controls. Journal of Glaucoma, 2014, 23, 513-520.	1.6	33
31	Diffusion fMRI detects white-matter dysfunction in mice with acute optic neuritis. Neurobiology of Disease, 2014, 67, 1-8.	4.4	20
32	Phase-aligned multiple spin-echo averaging: a simple way to improve signal-to-noise ratio of in vivo mouse spinal cord diffusion tensor image. Magnetic Resonance Imaging, 2014, 32, 1335-1343.	1.8	10
33	Quantifying white matter tract diffusion parameters in the presence of increased extra-fiber cellularity and vasogenic edema. NeuroImage, 2014, 101, 310-319.	4.2	108
34	Axonal transport rate decreased at the onset of optic neuritis in EAE mice. NeuroImage, 2014, 100, 244-253.	4.2	35
35	Improved in vivo diffusion tensor imaging of human cervical spinal cord. NeuroImage, 2013, 67, 64-76.	4.2	72
36	Diffusion tensor imaging of the mouse brainstem and cervical spinal cord. Nature Protocols, 2013, 8, 409-417.	12.0	18

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37	Spinal cord tract diffusion tensor imaging reveals disability substrate in demyelinating disease. Neurology, 2013, 80, 2201-2209.	1.1	63
38	Oligodendrocyte Lineage and Subventricular Zone Response to Traumatic Axonal Injury in the Corpus Callosum. Journal of Neuropathology and Experimental Neurology, 2013, 72, 1106-1125.	1.7	76
39	Diffusion tensor imaging detects treatment effects of FTY720 in experimental autoimmune encephalomyelitis mice. NMR in Biomedicine, 2013, 26, 1742-1750.	2.8	22
40	The impact of myelination on axon sparing and locomotor function recovery in spinal cord injury assessed using diffusion tensor imaging. NMR in Biomedicine, 2013, 26, 1484-1495.	2.8	18
41	Increased radial diffusivity in spinal cord lesions in neuromyelitis optica compared with multiple sclerosis. Multiple Sclerosis Journal, 2012, 18, 1259-1268.	3.0	48
42	Diffusion Tensor Imaging in Acute Optic Neuropathies. Archives of Neurology, 2012, 69, 65.	4.5	50
43	Diffusion Tensor Imaging Detected Optic Nerve Injury Correlates with Decreased Compound Action Potentials after Murine Retinal Ischemia. , 2012, 53, 136.		16
44	Comprehensive locomotor outcomes correlate to hyperacute diffusion tensor measures after spinal cord injury in the adult rat. Experimental Neurology, 2012, 235, 188-196.	4.1	48
45	Quantification of increased cellularity during inflammatory demyelination. Brain, 2011, 134, 3590-3601.	7.6	317
46	Radial diffusivity predicts demyelination in ex vivo multiple sclerosis spinal cords. NeuroImage, 2011, 55, 1454-1460.	4.2	317
47	Neuropathologic Correlates for Diffusion Tensor Imaging in Postinfectious Encephalopathy. Pediatric Neurology, 2011, 44, 389-393.	2.1	15
48	Diffusion Tensor Imaging Detects Retinal Ganglion Cell Axon Damage in the Mouse Model of Optic Nerve Crush. , 2011, 52, 7001.		31
49	Reduced Axonopathy and Enhanced Remyelination After Chronic Demyelination in Fibroblast Growth Factor 2(Fgf2)-Null Mice: Differential Detection With Diffusion Tensor Imaging. Journal of Neuropathology and Experimental Neurology, 2011, 70, 157-165.	1.7	36
50	CXCR7 antagonism prevents axonal injury during experimental autoimmune encephalomyelitis as revealed by in vivoaxial diffusivity. Journal of Neuroinflammation, 2011, 8, 170.	7.2	41
51	Noninvasive detection of brainstem and spinal cord axonal degeneration in an amyotrophic lateral sclerosis mouse model. NMR in Biomedicine, 2011, 24, 163-169.	2.8	24
52	Rostrocaudal Analysis of Corpus Callosum Demyelination and Axon Damage Across Disease Stages Refines Diffusion Tensor Imaging Correlations With Pathological Features. Journal of Neuropathology and Experimental Neurology, 2010, 69, 704-716.	1.7	150
53	Full Tensor Diffusion Imaging Is Not Required To Assess the White-Matter Integrity in Mouse Contusion Spinal Cord Injury. Journal of Neurotrauma, 2010, 27, 253-262.	3.4	26
54	Diffusion Tensor Imaging at 3 Hours after Traumatic Spinal Cord Injury Predicts Long-Term Locomotor Recovery. Journal of Neurotrauma, 2010, 27, 587-598.	3.4	102

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55	Impact Speed Does Not Determine Severity of Spinal Cord Injury in Mice with Fixed Impact Displacement. Journal of Neurotrauma, 2009, 26, 1395-1404.	3.4	27
56	Axial Diffusivity Is the Primary Correlate of Axonal Injury in the Experimental Autoimmune Encephalomyelitis Spinal Cord: A Quantitative Pixelwise Analysis. Journal of Neuroscience, 2009, 29, 2805-2813.	3.6	430
57	Quantitative magnetization transfer measured poolâ€size ratio reflects optic nerve myelin content in ex vivo mice. Magnetic Resonance in Medicine, 2009, 61, 364-371.	3.0	69
58	The MT pool size ratio and the DTI radial diffusivity may reflect the myelination in shiverer and control mice. NMR in Biomedicine, 2009, 22, 480-487.	2.8	76
59	Diffusion tensor imaging detects axonal injury and demyelination in the spinal cord and cranial nerves of a murine model of globoid cell leukodystrophy. NMR in Biomedicine, 2009, 22, 1100-1106.	2.8	33
60	Diffusion tensor imaging of mouse brain stem and cervical spinal cord. Journal of Neuroscience Methods, 2009, 176, 186-191.	2.5	13
61	Impact speed does not determine severity of spinal cord injury in mice with fixed impact displacement. Journal of Neurotrauma, 2009, 26, 110306202455053.	3.4	17
62	Axonal injury detected by in vivo diffusion tensor imaging correlates with neurological disability in a mouse model of multiple sclerosis. NMR in Biomedicine, 2008, 21, 589-597.	2.8	172
63	Assessing optic nerve pathology with diffusion MRI: from mouse to human. NMR in Biomedicine, 2008, 21, 928-940.	2.8	85
64	Evolving Wallerian degeneration after transient retinal ischemia in mice characterized by diffusion tensor imaging. NeuroImage, 2008, 40, 1-10.	4.2	181
65	Directional diffusivity as a magnetic resonance (MR) biomarker in demyelinating disease. Proceedings of SPIE, 2007, , .	0.8	1
66	Diffusion Tensor Imaging Predicts Hyperacute Spinal Cord Injury Severity. Journal of Neurotrauma, 2007, 24, 979-990.	3.4	122
67	Postmortem delay does not change regional diffusion anisotropy characteristics in mouse spinal cord white matter. NMR in Biomedicine, 2007, 20, 352-359.	2.8	33
68	Toward accurate diagnosis of white matter pathology using diffusion tensor imaging. Magnetic Resonance in Medicine, 2007, 57, 688-695.	3.0	355
69	Noninvasive diffusion tensor imaging of evolving white matter pathology in a mouse model of acute spinal cord injury. Magnetic Resonance in Medicine, 2007, 58, 253-260.	3.0	151
70	Selective vulnerability of cerebral white matter in a murine model of multiple sclerosis detected using diffusion tensor imaging. Neurobiology of Disease, 2007, 28, 30-38.	4.4	94
71	Differential sensitivity of in vivo and ex vivo diffusion tensor imaging to evolving optic nerve injury in mice with retinal ischemia. NeuroImage, 2006, 32, 1195-1204.	4.2	205
72	Detecting axon damage in spinal cord from a mouse model of multiple sclerosis. Neurobiology of Disease, 2006, 21, 626-632.	4.4	220

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73	Noninvasive detection of cuprizone induced axonal damage and demyelination in the mouse corpus callosum. Magnetic Resonance in Medicine, 2006, 55, 302-308.	3.0	413
74	Formalin fixation alters water diffusion coefficient magnitude but not anisotropy in infarcted brain. Magnetic Resonance in Medicine, 2005, 53, 1447-1451.	3.0	188
75	Developmental Changes in Diffusion Anisotropy Coincide with Immature Oligodendrocyte Progression and Maturation of Compound Action Potential. Journal of Neuroscience, 2005, 25, 5988-5997.	3.6	181
76	Demyelination increases radial diffusivity in corpus callosum of mouse brain. NeuroImage, 2005, 26, 132-140.	4.2	1,482
77	Detection of age-dependent brain injury in a mouse model of brain amyloidosis associated with Alzheimer's disease using magnetic resonance diffusion tensor imaging. Experimental Neurology, 2005, 191, 77-85.	4.1	111
78	A simple, robust hardware device for passive or active respiratory gating in MRI and MRS experiments. Concepts in Magnetic Resonance, 2004, 21B, 40-48.	1.3	26
79	Diffusion tensor imaging detects age-dependent white matter changes in a transgenic mouse model with amyloid deposition. Neurobiology of Disease, 2004, 15, 640-647.	4.4	164
80	Relative indices of water diffusion anisotropy are equivalent in live and formalinâ€fixed mouse brains. Magnetic Resonance in Medicine, 2003, 50, 743-748.	3.0	218
81	Diffusion tensor imaging detects and differentiates axon and myelin degeneration in mouse optic nerve after retinal ischemia. NeuroImage, 2003, 20, 1714-1722.	4.2	1,593
82	Dysmyelination Revealed through MRI as Increased Radial (but Unchanged Axial) Diffusion of Water. NeuroImage, 2002, 17, 1429-1436.	4.2	2,301
83	Improved magnetic resonance imaging detection of prostate cancer in a transgenic mouse model. Cancer Research, 2002, 62, 1555-8.	0.9	53
84	Tumor Necrosis Factor Receptor Deletion Reduces Nuclear Factor-ÎºB Activation, Cellular Inhibitor of Apoptosis Protein 2 Expression, and Functional Recovery after Traumatic Spinal Cord Injury. Journal of Neuroscience, 2001, 21, 6617-6625.	3.6	145
85	Improving relative anisotropy measurement using directional correlation of diffusion tensors. Magnetic Resonance in Medicine, 2001, 46, 1088-1092.	3.0	18
86	Impaired prostate tumorigenesis in Egr1-deficient mice. Nature Medicine, 2001, 7, 101-107.	30.7	153
87	Concurrent quantification of tissue metabolism and blood flow via2h/31P NMR in vivo. i. assessment of absolute metabolite quantification. Magnetic Resonance in Medicine, 1992, 25, 45-55.	3.0	12
88	Concurrent quantification of tissue metabolism and blood flow via2h/31P NMRin Vivo. 11. validation of the deuterium nmr washout method for measuring organ perfusion. Magnetic Resonance in Medicine, 1992, 25, 56-66.	3.0	13
89	Concurrent quantification of tissue metabolism and blood flow via2h/31P NMRin Viva iii. alterations of muscle blood flow and metabolism during sepsis. Magnetic Resonance in Medicine, 1992, 25, 67-77.	3.0	25