Valerij G Kiselev

List of Publications by Year
in descending order

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93	5,652	109264 35	88593 70
papers	citations	h-index	g-index

94	94	94	5860
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Gibbsâ€ringing artifact removal based on local subvoxelâ€shifts. Magnetic Resonance in Medicine, 2016, 76, 1574-1581.	1.9	918
2	Enhancement of BOLD-contrast sensitivity by single-shot multi-echo functional MR imaging. Magnetic Resonance in Medicine, 1999, 42, 87-97.	1.9	336
3	Quantifying brain microstructure with diffusion MRI: Theory and parameter estimation. NMR in Biomedicine, 2019, 32, e3998.	1.6	335
4	On modeling. Magnetic Resonance in Medicine, 2018, 79, 3172-3193.	1.9	286
5	Global fiber reconstruction becomes practical. NeuroImage, 2011, 54, 955-962.	2.1	277
6	Analytical model of susceptibility-induced MR signal dephasing: Effect of diffusion in a microvascular network. Magnetic Resonance in Medicine, 1999, 41, 499-509.	1.9	182
7	Vessel size imaging in humans. Magnetic Resonance in Medicine, 2005, 53, 553-563.	1.9	181
8	On the theoretical basis of perfusion measurements by dynamic susceptibility contrast MRI. Magnetic Resonance in Medicine, 2001, 46, 1113-1122.	1.9	169
9	Structural Connectivity for Visuospatial Attention: Significance of Ventral Pathways. Cerebral Cortex, 2010, 20, 121-129.	1.6	155
10	Disentangling micro from mesostructure by diffusion MRI: A Bayesian approach. NeuroImage, 2017, 147, 964-975.	2.1	138
11	Gibbs tracking: A novel approach for the reconstruction of neuronal pathways. Magnetic Resonance in Medicine, 2008, 60, 953-963.	1.9	133
12	Is the brain cortex a fractal?. NeuroImage, 2003, 20, 1765-1774.	2.1	128
13	Is the â€œbiexponential diffusionâ€•biexponential?. Magnetic Resonance in Medicine, 2007, 57, 464-469.	1.9	120
14	Theoretical model of intravascular paramagnetic tracers effect on tissue relaxation. Magnetic Resonance in Medicine, 2006, 56, 187-197.	1.9	119
15	Effective medium theory of a diffusionâ€weighted signal. NMR in Biomedicine, 2010, 23, 682-697.	1.6	119
16	Effect of graded hypo- and hypercapnia on fMRI contrast in visual cortex: Quantification ofT*2 changes by multiecho EPI. Magnetic Resonance in Medicine, 2001, 46, 264-271.	1.9	97
17	Fundamentals of diffusion MRI physics. NMR in Biomedicine, 2017, 30, e3602.	1.6	84
18	Analytical Theory of Susceptibility Induced NMR Signal Dephasing in a Cerebrovascular Network. Physical Review Letters, 1998, 81, 5696-5699.	2.9	82

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19	A new approach to measure single-event related brain activity using real-time fMRI: Feasibility of sensory, motor, and higher cognitive tasks. Human Brain Mapping, 2001, 12, 25-41.	1.9	78
20	Reduced anterior internal capsule white matter integrity in primary insomnia. Human Brain Mapping, 2014, 35, 3431-3438.	1.9	72
21	Intra-axonal diffusivity in brain white matter. NeuroImage, 2019, 189, 543-550.	2.1	71
22	Connecting and merging fibres: Pathway extraction by combining probability maps. NeuroImage, 2008, 43, 81-89.	2.1	64
23	Assessment of vascular remodeling under antiangiogenic therapy using DCEâ€MRI and vessel size imaging. Journal of Magnetic Resonance Imaging, 2009, 29, 1125-1133.	1.9	60
24	The absence of restricted water pool in brain white matter. NeuroImage, 2018, 182, 398-406.	2.1	59
25	One-loop corrections to the bubble nucleation rate at finite temperature. Physical Review D, 1993, 48, 5648-5654.	1.6	56
26	Extended phase graphs with anisotropic diffusion. Journal of Magnetic Resonance, 2010, 205, 276-285.	1.2	55
27	Transverse NMR relaxation in biological tissues. NeuroImage, 2018, 182, 149-168.	2.1	55
28	Fiber Continuity: An Anisotropic Prior for ODF Estimation. IEEE Transactions on Medical Imaging, 2011, 30, 1274-1283.	5.4	50
29	Surface-to-volume ratio with oscillating gradients. Journal of Magnetic Resonance, 2011, 210, 141-145.	1.2	50
30	Transverse NMR Relaxation as a Probe of Mesoscopic Structure. Physical Review Letters, 2002, 89, 278101.	2.9	48
31	Transverse relaxation effect of MRI contrast agents: A crucial issue for quantitative measurements of cerebral perfusion. Journal of Magnetic Resonance Imaging, 2005, 22, 693-696.	1.9	48
32	Effect of impermeable boundaries on diffusion-attenuated MR signal. Journal of Magnetic Resonance, 2006, 179, 223-233.	1.2	46
33	Single-shot T2* mapping with 3D compensation of local susceptibility gradients in multiple regions. NeuroImage, 2003, 18, 390-400.	2.1	45
34	Analysis of partial volume effects on arterial input functions using gradient echo: A simulation study. Magnetic Resonance in Medicine, 2009, 61, 1300-1309.	1.9	43
35	The Cumulant Expansion: An Overarching Mathematical Framework For Understanding Diffusion NMR. , 2010, , 152-168.		42
36	Attentionâ€network specific alterations of structural connectivity in the undamaged white matter in acute neglect. Human Brain Mapping, 2014, 35, 4678-4692.	1.9	40

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37	Distinct white matter alterations following severe stroke. Neurology, 2017, 88, 1546-1555.	1.5	40
38	Effect of magnetic field gradients induced by microvasculature on NMR measurements of molecular self-diffusion in biological tissues. Journal of Magnetic Resonance, 2004, 170, 228-235.	1.2	35
39	Vessel Size Imaging Reveals Pathological Changes of Microvessel Density and Size in Acute Ischemia. Journal of Cerebral Blood Flow and Metabolism, 2011, 31, 1687-1695.	2.4	35
40	A unique analytical solution of the white matter standard model using linear and planar encodings. Magnetic Resonance in Medicine, 2019, 81, 3819-3825.	1.9	35
41	About the Geometry of Asymmetric Fiber Orientation Distributions. IEEE Transactions on Medical Imaging, 2012, 31, 1240-1249.	5.4	30
42	Dynamic hysteresis between gradient echo and spin echo attenuations in dynamic susceptibility contrast imaging. Magnetic Resonance in Medicine, 2013, 69, 981-991.	1.9	30
43	MesoFT: Unifying Diffusion Modelling and Fiber Tracking. Lecture Notes in Computer Science, 2014, 17, 201-208.	1.0	30
44	Transverse NMR relaxation in magnetically heterogeneous media. Journal of Magnetic Resonance, 2008, 195, 33-39.	1.2	28
45	Effects of mesoscopic susceptibility and transverse relaxation on diffusion NMR. Journal of Magnetic Resonance, 2018, 293, 134-144.	1.2	24
46	Diffusion properties of conventional and calciumâ€sensitive MRI contrast agents in the rat cerebral cortex. Contrast Media and Molecular Imaging, 2014, 9, 71-82.	0.4	22
47	Quantum correction to the monopole mass. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 213, 165-167.	1.5	21
48	Arterial input function measurements for bolus tracking perfusion imaging in the brain. Magnetic Resonance in Medicine, 2013, 69, 771-780.	1.9	21
49	Vascular changes after stroke in the rat: a longitudinal study using optimized magnetic resonance imaging. Contrast Media and Molecular Imaging, 2013, 8, 383-392.	0.4	21
50	Calculation of diffusion effect for arbitrary pulse sequences. Journal of Magnetic Resonance, 2003, 164, 205-211.	1.2	20
51	Theory of susceptibility-induced transverse relaxation in the capillary network in the diffusion narrowing regime. Magnetic Resonance in Medicine, 2005, 53, 564-573.	1.9	20
52	Integrative Diffusion-Weighted Imaging and Radiogenomic Network Analysis of Glioblastoma multiforme. Scientific Reports, 2017, 7, 43523.	1.6	20
53	Fully automated classification of HARDI in vivo data using a support vector machine. NeuroImage, 2009, 46, 642-651.	2.1	19
54	Local and Global Fiber Tractography in Patients with Epilepsy. American Journal of Neuroradiology, 2014, 35, 291-296.	1.2	19

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55	A higher order visual neuron tuned to the spatial amplitude spectra of natural scenes. Nature Communications, 2015, 6, 8522.	5.8	18
56	Molecular differences between cerebral blood volume and vessel size in glioblastoma multiforme. Oncotarget, 2017, 8, 11083-11093.	0.8	18
57	Forced topological nontrivial field configurations. Physical Review D, 1998, 57, 5174-5183.	1.6	17
58	MR evaluation of vessel size imaging of human gliomas: Validation by histopathology. Journal of Magnetic Resonance Imaging, 2015, 42, 1117-1125.	1.9	17
59	The effect of impermeable boundaries of arbitrary geometry on the apparent diffusion coefficient. Journal of Magnetic Resonance, 2008, 194, 128-135.	1.2	16
60	On the design of filters for fourier and oSVD-based deconvolution in bolus tracking perfusion MRI. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2010, 23, 187-195.	1.1	16
61	The larmor frequency shift in magnetically heterogeneous media depends on their mesoscopic structure. Magnetic Resonance in Medicine, 2018, 79, 1101-1110.	1.9	16
62	Fiber density estimation from single q-shell diffusion imaging by tensor divergence. NeuroImage, 2013, 77, 166-176.	2.1	15
63	Microstructure with diffusion MRI: what scale we are sensitive to?. Journal of Neuroscience Methods, 2021, 347, 108910.	1.3	15
64	False-vacuum decay induced by a two-particle collision in two dimensions. Physical Review D, 1992, 45, 2929-2932.	1.6	14
65	Extraction of the first bolus passage in dynamic susceptibility contrast perfusion measurements. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2009, 22, 241-249.	1.1	14
66	Larmor frequency in heterogeneous media. Journal of Magnetic Resonance, 2019, 299, 168-175.	1.2	12
67	Automated Infarct Core Volumetry Within the Hypoperfused Tissue. Journal of Computer Assisted Tomography, 2017, 41, 515-520.	0.5	11
68	Mesoscopic imaging of glioblastomas: Are diffusion, perfusion and spectroscopic measures influenced by the radiogenetic phenotype?. Neuroradiology Journal, 2017, 30, 36-47.	0.6	11
69	The Potential of Microvessel Density in Prediction of Infarct Growth: A Two-Month Experimental Study in Vessel Size Imaging. Cerebrovascular Diseases, 2012, 33, 303-309.	0.8	10
70	Comment on â€œMagnetic resonance imaging by synergistic diffusion-diffraction patternsâ€• Physical Review Letters, 2013, 110, 109801.	2.9	10
71	Larmor frequency dependence on structural anisotropy of magnetically heterogeneous media. Journal of Magnetic Resonance, 2019, 307, 106584.	1.2	10
72	Toward Quantification. Investigative Radiology, 2021, 56, 1-9.	3.5	9

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73	False-vacuum decay induced by dense matter in two dimensions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 304, 214-219.	1.5	8
74	Global Tracking in Human Gliomas: A Comparison with Established Tracking Methods. Clinical Neuroradiology, 2013, 23, 263-275.	1.0	7
75	Blood Tracer Kinetics in the Arterial Tree. PLoS ONE, 2014, 9, e109230.	1.1	7
76	Do twisted laser beams evoke nuclear hyperpolarization?. Journal of Magnetic Resonance, 2016, 268, 58-67.	1.2	7
77	Modelfree global tractography. NeuroImage, 2018, 174, 576-586.	2.1	7
78	Calculation of Larmor precession frequency in magnetically heterogeneous media. Concepts in Magnetic Resonance Part A: Bridging Education and Research, 2018, 47A, .	0.2	7
79	On kink dynamics in media with increasing absorption optical bistability. Physica Status Solidi (B): Basic Research, 1989, 152, 667-674.	0.7	6
80	Effect of impermeable interfaces on apparent diffusion coefficient in heterogeneous media. Applied Magnetic Resonance, 2005, 29, 123-137.	0.6	6
81	Comparison of automated and visual DWI ASPECTS in acute ischemic stroke. Journal of Neuroradiology, 2019, 46, 288-293.	0.6	6
82	The Diffusion Dictionary in the Human Brain Is Short: Rotation Invariant Learning of Basis Functions. Mathematics and Visualization, 2014, , 47-55.	0.4	6
83	Quantitative cerebral blood flow with bolus tracking perfusion MRI: Measurements in porcine model and comparison with PET. Magnetic Resonance in Medicine, 2014, 72, 1723-1734.	1.9	5
84	Monopole in the Coleman-Weinberg model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1990, 249, 269-272.	1.5	4
85	Arterial input function in a dedicated slice for cerebral perfusion measurements in humans. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2018, 31, 439-448.	1.1	4
86	Threeâ€dimensional spatially resolved phase graph framework. Magnetic Resonance in Medicine, 2021, 86, 551-560.	1.9	4
87	Discrimination of epileptogenic lesions and perilesional white matter using diffusion tensor magnetic resonance imaging. Neuroradiology Journal, 2019, 32, 10-16.	0.6	3
88	On quantum mechanical tunneling at high energy. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 278, 454-456.	1.5	2
89	Kiselev and Novikov Reply:. Physical Review Letters, 2003, 91, .	2.9	2
90	Tissueâ€“blood exchange of extravascular longitudinal magnetization with account of intracompartmental diffusion. Magnetic Resonance in Medicine, 2011, 66, 1445-1455.	1.9	1

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91	What is the lightest excited state of the strongly selfcoupled Higgs field?. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 342, 270-276.	1.5	0
92	Response to Comment on â€œLarmor Frequency in Heterogeneous Mediaâ€• Journal of Magnetic Resonance, 2019, 308, 106556.	1.2	0
93	Fiber Density Estimation by Tensor Divergence. Lecture Notes in Computer Science, 2012, 15, 297-304.	1.0	0