

Valerij G Kiselev

List of Publications by Year in descending order

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Version: 2024-02-01

93
papers

5,652
citations

109321

35
h-index

88630

70
g-index

94
all docs

94
docs citations

94
times ranked

5860
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Microstructure with diffusion MRI: what scale we are sensitive to?. Journal of Neuroscience Methods, 2021, 347, 108910. | 2.5 | 15 |
| 2 | Toward Quantification. Investigative Radiology, 2021, 56, 1-9. | 6.2 | 9 |
| 3 | Three-dimensional spatially resolved phase graph framework. Magnetic Resonance in Medicine, 2021, 86, 551-560. | 3.0 | 4 |
| 4 | Response to Comment on "Larmor Frequency in Heterogeneous Media". Journal of Magnetic Resonance, 2019, 308, 106556. | 2.1 | 0 |
| 5 | Larmor frequency dependence on structural anisotropy of magnetically heterogeneous media. Journal of Magnetic Resonance, 2019, 307, 106584. | 2.1 | 10 |
| 6 | Intra-axonal diffusivity in brain white matter. NeuroImage, 2019, 189, 543-550. | 4.2 | 71 |
| 7 | A unique analytical solution of the white matter standard model using linear and planar encodings. Magnetic Resonance in Medicine, 2019, 81, 3819-3825. | 3.0 | 35 |
| 8 | Comparison of automated and visual DWI ASPECTS in acute ischemic stroke. Journal of Neuroradiology, 2019, 46, 288-293. | 1.1 | 6 |
| 9 | Discrimination of epileptogenic lesions and perilesional white matter using diffusion tensor magnetic resonance imaging. Neuroradiology Journal, 2019, 32, 10-16. | 1.2 | 3 |
| 10 | Larmor frequency in heterogeneous media. Journal of Magnetic Resonance, 2019, 299, 168-175. | 2.1 | 12 |
| 11 | Quantifying brain microstructure with diffusion MRI: Theory and parameter estimation. NMR in Biomedicine, 2019, 32, e3998. | 2.8 | 335 |
| 12 | On modeling. Magnetic Resonance in Medicine, 2018, 79, 3172-3193. | 3.0 | 286 |
| 13 | 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. | 2.0 | 4 |
| 14 | Model-free global tractography. NeuroImage, 2018, 174, 576-586. | 4.2 | 7 |
| 15 | The Larmor frequency shift in magnetically heterogeneous media depends on their mesoscopic structure. Magnetic Resonance in Medicine, 2018, 79, 1101-1110. | 3.0 | 16 |
| 16 | The absence of restricted water pool in brain white matter. NeuroImage, 2018, 182, 398-406. | 4.2 | 59 |
| 17 | Calculation of Larmor precession frequency in magnetically heterogeneous media. Concepts in Magnetic Resonance Part A: Bridging Education and Research, 2018, 47A, . | 0.5 | 7 |
| 18 | Effects of mesoscopic susceptibility and transverse relaxation on diffusion NMR. Journal of Magnetic Resonance, 2018, 293, 134-144. | 2.1 | 24 |

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|----|---|------|-----------|
| 19 | Transverse NMR relaxation in biological tissues. <i>NeuroImage</i> , 2018, 182, 149-168. | 4.2 | 55 |
| 20 | Fundamentals of diffusion MRI physics. <i>NMR in Biomedicine</i> , 2017, 30, e3602. | 2.8 | 84 |
| 21 | Distinct white matter alterations following severe stroke. <i>Neurology</i> , 2017, 88, 1546-1555. | 1.1 | 40 |
| 22 | Integrative Diffusion-Weighted Imaging and Radiogenomic Network Analysis of Glioblastoma multiforme. <i>Scientific Reports</i> , 2017, 7, 43523. | 3.3 | 20 |
| 23 | Automated Infarct Core Volumetry Within the Hypoperfused Tissue. <i>Journal of Computer Assisted Tomography</i> , 2017, 41, 515-520. | 0.9 | 11 |
| 24 | Mesoscopic imaging of glioblastomas: Are diffusion, perfusion and spectroscopic measures influenced by the radiogenetic phenotype?. <i>Neuroradiology Journal</i> , 2017, 30, 36-47. | 1.2 | 11 |
| 25 | Disentangling micro from mesostructure by diffusion MRI: A Bayesian approach. <i>NeuroImage</i> , 2017, 147, 964-975. | 4.2 | 138 |
| 26 | Molecular differences between cerebral blood volume and vessel size in glioblastoma multiforme. <i>Oncotarget</i> , 2017, 8, 11083-11093. | 1.8 | 18 |
| 27 | Gibbs ringing artifact removal based on local subvoxel shifts. <i>Magnetic Resonance in Medicine</i> , 2016, 76, 1574-1581. | 3.0 | 918 |
| 28 | Do twisted laser beams evoke nuclear hyperpolarization?. <i>Journal of Magnetic Resonance</i> , 2016, 268, 58-67. | 2.1 | 7 |
| 29 | MR evaluation of vessel size imaging of human gliomas: Validation by histopathology. <i>Journal of Magnetic Resonance Imaging</i> , 2015, 42, 1117-1125. | 3.4 | 17 |
| 30 | A higher order visual neuron tuned to the spatial amplitude spectra of natural scenes. <i>Nature Communications</i> , 2015, 6, 8522. | 12.8 | 18 |
| 31 | Blood Tracer Kinetics in the Arterial Tree. <i>PLoS ONE</i> , 2014, 9, e109230. | 2.5 | 7 |
| 32 | Reduced anterior internal capsule white matter integrity in primary insomnia. <i>Human Brain Mapping</i> , 2014, 35, 3431-3438. | 3.6 | 72 |
| 33 | Quantitative cerebral blood flow with bolus tracking perfusion MRI: Measurements in porcine model and comparison with PET. <i>Magnetic Resonance in Medicine</i> , 2014, 72, 1723-1734. | 3.0 | 5 |
| 34 | Attention network specific alterations of structural connectivity in the undamaged white matter in acute neglect. <i>Human Brain Mapping</i> , 2014, 35, 4678-4692. | 3.6 | 40 |
| 35 | Diffusion properties of conventional and calcium sensitive MRI contrast agents in the rat cerebral cortex. <i>Contrast Media and Molecular Imaging</i> , 2014, 9, 71-82. | 0.8 | 22 |
| 36 | Local and Global Fiber Tractography in Patients with Epilepsy. <i>American Journal of Neuroradiology</i> , 2014, 35, 291-296. | 2.4 | 19 |

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|----|---|-----|-----------|
| 37 | MesoFT: Unifying Diffusion Modelling and Fiber Tracking. Lecture Notes in Computer Science, 2014, 17, 201-208. | 1.3 | 30 |
| 38 | The Diffusion Dictionary in the Human Brain Is Short: Rotation Invariant Learning of Basis Functions. Mathematics and Visualization, 2014, , 47-55. | 0.6 | 6 |
| 39 | Arterial input function measurements for bolus tracking perfusion imaging in the brain. Magnetic Resonance in Medicine, 2013, 69, 771-780. | 3.0 | 21 |
| 40 | Dynamic hysteresis between gradient echo and spin echo attenuations in dynamic susceptibility contrast imaging. Magnetic Resonance in Medicine, 2013, 69, 981-991. | 3.0 | 30 |
| 41 | Global Tracking in Human Gliomas: A Comparison with Established Tracking Methods. Clinical Neuroradiology, 2013, 23, 263-275. | 1.9 | 7 |
| 42 | Fiber density estimation from single q-shell diffusion imaging by tensor divergence. NeuroImage, 2013, 77, 166-176. | 4.2 | 15 |
| 43 | Vascular changes after stroke in the rat: a longitudinal study using optimized magnetic resonance imaging. Contrast Media and Molecular Imaging, 2013, 8, 383-392. | 0.8 | 21 |
| 44 | Comment on "Magnetic resonance imaging by synergistic diffusion-diffraction patterns". Physical Review Letters, 2013, 110, 109801. | 7.8 | 10 |
| 45 | 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. | 1.7 | 10 |
| 46 | About the Geometry of Asymmetric Fiber Orientation Distributions. IEEE Transactions on Medical Imaging, 2012, 31, 1240-1249. | 8.9 | 30 |
| 47 | Fiber Density Estimation by Tensor Divergence. Lecture Notes in Computer Science, 2012, 15, 297-304. | 1.3 | 0 |
| 48 | Global fiber reconstruction becomes practical. NeuroImage, 2011, 54, 955-962. | 4.2 | 277 |
| 49 | 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. | 4.3 | 35 |
| 50 | Fiber Continuity: An Anisotropic Prior for ODF Estimation. IEEE Transactions on Medical Imaging, 2011, 30, 1274-1283. | 8.9 | 50 |
| 51 | Tissue "blood exchange of extravascular longitudinal magnetization with account of intracompartmental diffusion. Magnetic Resonance in Medicine, 2011, 66, 1445-1455. | 3.0 | 1 |
| 52 | Surface-to-volume ratio with oscillating gradients. Journal of Magnetic Resonance, 2011, 210, 141-145. | 2.1 | 50 |
| 53 | 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. | 2.0 | 16 |
| 54 | Effective medium theory of a diffusion-weighted signal. NMR in Biomedicine, 2010, 23, 682-697. | 2.8 | 119 |

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|----|---|-----|-----------|
| 55 | Extended phase graphs with anisotropic diffusion. <i>Journal of Magnetic Resonance</i> , 2010, 205, 276-285. | 2.1 | 55 |
| 56 | Structural Connectivity for Visuospatial Attention: Significance of Ventral Pathways. <i>Cerebral Cortex</i> , 2010, 20, 121-129. | 2.9 | 155 |
| 57 | The Cumulant Expansion: An Overarching Mathematical Framework For Understanding Diffusion NMR. , 2010, , 152-168. | | 42 |
| 58 | Assessment of vascular remodeling under antiangiogenic therapy using DCE-MRI and vessel size imaging. <i>Journal of Magnetic Resonance Imaging</i> , 2009, 29, 1125-1133. | 3.4 | 60 |
| 59 | Analysis of partial volume effects on arterial input functions using gradient echo: A simulation study. <i>Magnetic Resonance in Medicine</i> , 2009, 61, 1300-1309. | 3.0 | 43 |
| 60 | Extraction of the first bolus passage in dynamic susceptibility contrast perfusion measurements. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2009, 22, 241-249. | 2.0 | 14 |
| 61 | Fully automated classification of HARDI in vivo data using a support vector machine. <i>NeuroImage</i> , 2009, 46, 642-651. | 4.2 | 19 |
| 62 | Transverse NMR relaxation in magnetically heterogeneous media. <i>Journal of Magnetic Resonance</i> , 2008, 195, 33-39. | 2.1 | 28 |
| 63 | Gibbs tracking: A novel approach for the reconstruction of neuronal pathways. <i>Magnetic Resonance in Medicine</i> , 2008, 60, 953-963. | 3.0 | 133 |
| 64 | The effect of impermeable boundaries of arbitrary geometry on the apparent diffusion coefficient. <i>Journal of Magnetic Resonance</i> , 2008, 194, 128-135. | 2.1 | 16 |
| 65 | Connecting and merging fibres: Pathway extraction by combining probability maps. <i>NeuroImage</i> , 2008, 43, 81-89. | 4.2 | 64 |
| 66 | Is the "biexponential diffusion" biexponential?. <i>Magnetic Resonance in Medicine</i> , 2007, 57, 464-469. | 3.0 | 120 |
| 67 | Effect of impermeable boundaries on diffusion-attenuated MR signal. <i>Journal of Magnetic Resonance</i> , 2006, 179, 223-233. | 2.1 | 46 |
| 68 | Theoretical model of intravascular paramagnetic tracers effect on tissue relaxation. <i>Magnetic Resonance in Medicine</i> , 2006, 56, 187-197. | 3.0 | 119 |
| 69 | Transverse relaxation effect of MRI contrast agents: A crucial issue for quantitative measurements of cerebral perfusion. <i>Journal of Magnetic Resonance Imaging</i> , 2005, 22, 693-696. | 3.4 | 48 |
| 70 | Vessel size imaging in humans. <i>Magnetic Resonance in Medicine</i> , 2005, 53, 553-563. | 3.0 | 181 |
| 71 | Theory of susceptibility-induced transverse relaxation in the capillary network in the diffusion narrowing regime. <i>Magnetic Resonance in Medicine</i> , 2005, 53, 564-573. | 3.0 | 20 |
| 72 | Effect of impermeable interfaces on apparent diffusion coefficient in heterogeneous media. <i>Applied Magnetic Resonance</i> , 2005, 29, 123-137. | 1.2 | 6 |

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|----|--|-----|-----------|
| 73 | Effect of magnetic field gradients induced by microvasculature on NMR measurements of molecular self-diffusion in biological tissues. <i>Journal of Magnetic Resonance</i> , 2004, 170, 228-235. | 2.1 | 35 |
| 74 | Calculation of diffusion effect for arbitrary pulse sequences. <i>Journal of Magnetic Resonance</i> , 2003, 164, 205-211. | 2.1 | 20 |
| 75 | Single-shot T2* mapping with 3D compensation of local susceptibility gradients in multiple regions. <i>NeuroImage</i> , 2003, 18, 390-400. | 4.2 | 45 |
| 76 | Is the brain cortex a fractal?. <i>NeuroImage</i> , 2003, 20, 1765-1774. | 4.2 | 128 |
| 77 | Kiselev and Novikov Reply:. <i>Physical Review Letters</i> , 2003, 91, . | 7.8 | 2 |
| 78 | Transverse NMR Relaxation as a Probe of Mesoscopic Structure. <i>Physical Review Letters</i> , 2002, 89, 278101. | 7.8 | 48 |
| 79 | Effect of graded hypo- and hypercapnia on fMRI contrast in visual cortex: Quantification of T_2^* changes by multiecho EPI. <i>Magnetic Resonance in Medicine</i> , 2001, 46, 264-271. | 3.0 | 97 |
| 80 | On the theoretical basis of perfusion measurements by dynamic susceptibility contrast MRI. <i>Magnetic Resonance in Medicine</i> , 2001, 46, 1113-1122. | 3.0 | 169 |
| 81 | A new approach to measure single-event related brain activity using real-time fMRI: Feasibility of sensory, motor, and higher cognitive tasks. <i>Human Brain Mapping</i> , 2001, 12, 25-41. | 3.6 | 78 |
| 82 | Analytical model of susceptibility-induced MR signal dephasing: Effect of diffusion in a microvascular network. <i>Magnetic Resonance in Medicine</i> , 1999, 41, 499-509. | 3.0 | 182 |
| 83 | Enhancement of BOLD-contrast sensitivity by single-shot multi-echo functional MR imaging. <i>Magnetic Resonance in Medicine</i> , 1999, 42, 87-97. | 3.0 | 336 |
| 84 | Analytical Theory of Susceptibility Induced NMR Signal Dephasing in a Cerebrovascular Network. <i>Physical Review Letters</i> , 1998, 81, 5696-5699. | 7.8 | 82 |
| 85 | Forced topological nontrivial field configurations. <i>Physical Review D</i> , 1998, 57, 5174-5183. | 4.7 | 17 |
| 86 | What is the lightest excited state of the strongly selfcoupled Higgs field?. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1995, 342, 270-276. | 4.1 | 0 |
| 87 | False-vacuum decay induced by dense matter in two dimensions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1993, 304, 214-219. | 4.1 | 8 |
| 88 | One-loop corrections to the bubble nucleation rate at finite temperature. <i>Physical Review D</i> , 1993, 48, 5648-5654. | 4.7 | 56 |
| 89 | False-vacuum decay induced by a two-particle collision in two dimensions. <i>Physical Review D</i> , 1992, 45, 2929-2932. | 4.7 | 14 |
| 90 | On quantum mechanical tunneling at high energy. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1992, 278, 454-456. | 4.1 | 2 |

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|----|--|-----|-----------|
| 91 | Monopole in the Coleman-Weinberg model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1990, 249, 269-272. | 4.1 | 4 |
| 92 | On kink dynamics in media with increasing absorption optical bistability. Physica Status Solidi (B): Basic Research, 1989, 152, 667-674. | 1.5 | 6 |
| 93 | Quantum correction to the monopole mass. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 213, 165-167. | 4.1 | 21 |