Dmitry S Novikov

List of Publications by Year
in descending order

91	7,623	81743	60497
papers	citations	39 h-index	81 g-index

94	94	94	7170
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Denoising of diffusion MRI using random matrix theory. NeuroImage, 2016, 142, 394-406.	2.1	1,208
2	Diffusion <scp>MRI</scp> noise mapping using random matrix theory. Magnetic Resonance in Medicine, 2016, 76, 1582-1593.	1.9	541
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	Revealing mesoscopic structural universality with diffusion. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5088-5093.	3.3	266
6	Degeneracy in model parameter estimation for multiâ€compartmental diffusion in neuronal tissue. NMR in Biomedicine, 2016, 29, 33-47.	1.6	252
7	Elastic scattering theory and transport in graphene. Physical Review B, 2007, 76, .	1.1	226
8	Mesoscopic structure of neuronal tracts from time-dependent diffusion. NeuroImage, 2015, 114, 18-37.	2.1	199
9	Random walks with barriers. Nature Physics, 2011, 7, 508-514.	6.5	181
10	Monte Carlo study of a twoâ€compartment exchange model of diffusion. NMR in Biomedicine, 2010, 23, 711-724.	1.6	180
11	One diffusion acquisition and different white matter models: How does microstructure change in human early development based on WMTI and NODDI?. NeuroImage, 2015, 107, 242-256.	2.1	179
12	Rotationally-invariant mapping of scalar and orientational metrics of neuronal microstructure with diffusion MRI. NeuroImage, 2018, 174, 518-538.	2.1	173
13	TE dependent Diffusion Imaging (TEdDI) distinguishes between compartmental T2 relaxation times. NeuroImage, 2018, 182, 360-369.	2.1	160
14	In vivo quantification of demyelination and recovery using compartment-specific diffusion MRI metrics validated by electron microscopy. NeuroImage, 2016, 132, 104-114.	2.1	156
15	Mott Insulating State in Ultraclean Carbon Nanotubes. Science, 2009, 323, 106-110.	6.0	151
16	In vivo observation and biophysical interpretation of time-dependent diffusion in human white matter. NeuroImage, 2016, 129, 414-427.	2.1	147
17	Noninvasive quantification of axon radii using diffusion MRI. ELife, 2020, 9, .	2.8	137
18	Screening of a hypercritical charge in graphene. Physical Review B, 2007, 76, .	1.1	129

#	Article	IF	Citations
19	Numbers of donors and acceptors from transport measurements in graphene. Applied Physics Letters, 2007, 91, 102102.	1.5	127
20	Evaluation of the accuracy and precision of the diffusion parameter EStImation with Gibbs and NoisE removal pipeline. NeuroImage, 2018, 183, 532-543.	2.1	123
21	Effective medium theory of a diffusionâ€weighted signal. NMR in Biomedicine, 2010, 23, 682-697.	1.6	119
22	On the scaling behavior of water diffusion in human brain white matter. NeuroImage, 2019, 185, 379-387.	2.1	109
23	Gibbs ringing in diffusion MRI. Magnetic Resonance in Medicine, 2016, 76, 301-314.	1.9	108
24	Effect of disorder on a graphene<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>p</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi>n</mml:mi></mml:mrow></mml:math>junc Physical Review B, 2008, 77, .	1.1	106
25	Along-axon diameter variation and axonal orientation dispersion revealed with 3D electron microscopy: implications for quantifying brain white matter microstructure with histology and diffusion MRI. Brain Structure and Function, 2019, 224, 1469-1488.	1.2	77
26	Podocyte-Associated Molecules in Puromycin Aminonucleoside Nephrosis of the Rat. Laboratory Investigation, 2002, 82, 713-718.	1.7	74
27	Time-dependent diffusion in skeletal muscle with the random permeable barrier model (RPBM): application to normal controls and chronic exertional compartment syndrome patients. NMR in Biomedicine, 2014, 27, 519-528.	1.6	71
28	What dominates the time dependence of diffusion transverse to axons: Intra- or extra-axonal water?. NeuroImage, 2018, 182, 500-510.	2.1	65
29	Pulsed and oscillating gradient MRI for assessment of cell size and extracellular space (POMACE) in mouse gliomas. NMR in Biomedicine, 2016, 29, 1350-1363.	1.6	60
30	A time-dependent diffusion MRI signature of axon caliber variations and beading. Communications Biology, 2020, 3, 354.	2.0	60
31	Time-Dependent Diffusion in Prostate Cancer. Investigative Radiology, 2017, 52, 405-411.	3.5	58
32	Connectome 2.0: Developing the next-generation ultra-high gradient strength human MRI scanner for bridging studies of the micro-, meso- and macro-connectome. NeuroImage, 2021, 243, 118530.	2.1	58
33	Transverse NMR relaxation in biological tissues. NeuroImage, 2018, 182, 149-168.	2.1	55
34	Surfaceâ€toâ€volume ratio mapping of tumor microstructure using oscillating gradient diffusion weighted imaging. Magnetic Resonance in Medicine, 2016, 76, 237-247.	1.9	52
35	Surface-to-volume ratio with oscillating gradients. Journal of Magnetic Resonance, 2011, 210, 141-145.	1.2	50
36	The Presence and Role of Iron in Mild Traumatic Brain Injury: An Imaging Perspective. Journal of Neurotrauma, 2014, 31, 301-307.	1.7	50

#	Article	IF	Citations
37	A resting state fMRI analysis pipeline for pooling inference across diverse cohorts: an ENIGMA rs-fMRI protocol. Brain Imaging and Behavior, 2019, 13, 1453-1467.	1.1	49
38	Transverse NMR Relaxation as a Probe of Mesoscopic Structure. Physical Review Letters, 2002, 89, 278101.	2.9	48
39	Supersymmetry in carbon nanotubes in a transverse magnetic field. Physical Review B, 2003, 68, .	1.1	48
40	In vivo observation and biophysical interpretation of time-dependent diffusion in human cortical gray matter. NeuroImage, 2020, 222, 117054.	2.1	48
41	Diffusion MRI biomarkers of white matter microstructure vary nonmonotonically with increasing cerebral amyloid deposition. Neurobiology of Aging, 2020, 89, 118-128.	1.5	48
42	Neurite Exchange Imaging (NEXI): A minimal model of diffusion in gray matter with inter-compartment water exchange. NeuroImage, 2022, 256, 119277.	2.1	46
43	Comparison of heritability estimates on resting state fMRI connectivity phenotypes using the ENIGMA analysis pipeline. Human Brain Mapping, 2018, 39, 4893-4902.	1.9	45
44	In vivo measurement of membrane permeability and myofiber size in human muscle using timeâ€dependent diffusion tensor imaging and the random permeable barrier model. NMR in Biomedicine, 2017, 30, e3612.	1.6	44
45	Blinking Statistics Correlated with Nanoparticle Number. Nano Letters, 2008, 8, 4020-4026.	4.5	43
46	N -acetyl-aspartate levels correlate with intra-axonal compartment parameters from diffusion MRI. NeuroImage, 2015, 118, 334-343.	2.1	40
47	Characterization of Prostate Microstructure Using Water Diffusion and NMR Relaxation. Frontiers in Physics, 2018, 6, .	1.0	40
48	The impact of realistic axonal shape on axon diameter estimation using diffusion MRI. NeuroImage, 2020, 223, 117228.	2.1	40
49	Training a neural network for Gibbs and noise removal in diffusion MRI. Magnetic Resonance in Medicine, 2021, 85, 413-428.	1.9	35
50	LÃ©vy statistics and anomalous transport in quantum-dot arrays. Physical Review B, 2005, 72, .	1.1	34
51	Multi-parametric quantitative in vivo spinal cord MRI with unified signal readout and image denoising. NeuroImage, 2020, 217, 116884.	2.1	34
52	Early aseptic loosening of the Tritanium primary acetabular component with screw fixation. Arthroplasty Today, 2018, 4, 169-174.	0.8	33
53	Nanostructure-specific X-ray tomography reveals myelin levels, integrity and axon orientations in mouse and human nervous tissue. Nature Communications, 2021, 12, 2941.	5.8	33
54	Collective fluorescence enhancement in nanoparticle clusters. Nature Communications, 2011, 2, 364.	5.8	32

#	Article	IF	Citations
55	Working Memory And Brain Tissue Microstructure: White Matter Tract Integrity Based On Multi-Shell Diffusion MRI. Scientific Reports, 2018, 8, 3175.	1.6	32
56	White Matter Tract Integrity: An Indicator of Axonal Pathology after Mild Traumatic Brain Injury. Journal of Neurotrauma, 2018, 35, 1015-1020.	1.7	30
57	Transverse NMR relaxation in magnetically heterogeneous media. Journal of Magnetic Resonance, 2008, 195, 33-39.	1.2	28
58	Non-invasive, in vivo monitoring of neuronal transport impairment in a mouse model of tauopathy using MEMRI. NeuroImage, 2013, 64, 693-702.	2.1	28
59	Effects of mesoscopic susceptibility and transverse relaxation on diffusion NMR. Journal of Magnetic Resonance, 2018, 293, 134-144.	1.2	24
60	Miniature pig model of human adolescent brain white matter development. Journal of Neuroscience Methods, 2018, 296, 99-108.	1.3	22
61	Hybrid-state free precession in nuclear magnetic resonance. Communications Physics, 2019, 2, .	2.0	22
62	The present and the future of microstructure MRI: From a paradigm shift to normal science. Journal of Neuroscience Methods, 2021, 351, 108947.	1.3	22
63	Quantifying myofiber integrity using diffusion <scp>MRI</scp> and random permeable barrier modeling in skeletal muscle growth and Duchenne muscular dystrophy model in mice. Magnetic Resonance in Medicine, 2018, 80, 2094-2108.	1.9	21
64	Electron properties of carbon nanotubes in a periodic potential. Physical Review B, 2005, 72, .	1.1	20
65	Nonactivated transport of strongly interacting two-dimensional holes in GaAs. Physical Review B, 2006, 74, .	1.1	20
66	Integration of routine QA data into megaâ€analysis may improve quality and sensitivity of multisite diffusion tensor imaging studies. Human Brain Mapping, 2018, 39, 1015-1023.	1.9	20
67	Retrieving neuronal orientations using 3D scanning SAXS and comparison with diffusion MRI. NeuroImage, 2020, 204, 116214.	2.1	20
68	Heritability estimates on resting state fMRI data using ENIGMA analysis pipeline. , 2018, , .		20
69	Improved Task-based Functional MRI Language Mapping in Patients with Brain Tumors through Marchenko-Pastur Principal Component Analysis Denoising. Radiology, 2021, 298, 365-373.	3.6	19
70	Realistic Microstructure Simulator (RMS): Monte Carlo simulations of diffusion in three-dimensional cell segmentations of microscopy images. Journal of Neuroscience Methods, 2021, 350, 109018.	1.3	19
71	Validation of surfaceâ€toâ€volume ratio measurements derived from oscillating gradient spin echo on a clinical scanner using anisotropic fiber phantoms. NMR in Biomedicine, 2017, 30, e3708.	1.6	16
72	Altered Relationship between Working Memory and Brain Microstructure after Mild Traumatic Brain Injury. American Journal of Neuroradiology, 2019, 40, 1438-1444.	1.2	15

#	Article	IF	Citations
73	Measurement of cellularâ€interstitial water exchange time in tumors based on diffusionâ€timeâ€dependent diffusional kurtosis imaging. NMR in Biomedicine, 2021, 34, e4496.	1.6	15
74	Reproducibility of the Standard Model of diffusion in white matter on clinical MRI systems. NeuroImage, 2022, 257, 119290.	2.1	15
75	Genomic kinship construction to enhance genetic analyses in the human connectome project data. Human Brain Mapping, 2019, 40, 1677-1688.	1.9	14
76	Effect of intravoxel incoherent motion on diffusion parameters in normal brain. NeuroImage, 2020, 204, 116228.	2.1	14
77	Heritability estimates on resting state fMRI data using ENIGMA analysis pipeline. Pacific Symposium on Biocomputing Pacific Symposium on Biocomputing, 2018, 23, 307-318.	0.7	14
78	Observation of structural universality in disordered systems using bulk diffusion measurement. Physical Review E, 2017, 96, 061101.	0.8	13
79	Removal of partial Fourierâ€induced Gibbs (RPG) ringing artifacts in MRI. Magnetic Resonance in Medicine, 2021, 86, 2733-2750.	1.9	12
80	Critical conductance of a one-dimensional doped Mott insulator. Physical Review B, 2008, 77, .	1.1	10
81	Comment on â€œMagnetic resonance imaging by synergistic diffusion-diffraction patternsâ€. Physical Review Letters, 2013, 110, 109801.	2.9	10
82	Correlated electron states and transport in triangular arrays. Physical Review B, 2005, 72, .	1.1	9
83	Devilâ€™s Staircase of Incompressible Electron States in a Nanotube. Physical Review Letters, 2005, 95, 066401.	2.9	9
84	Lipid Metabolism, Abdominal Adiposity, and Cerebral Health in the Amish. Obesity, 2017, 25, 1876-1880.	1.5	8
85	Temperature-dependent Drude transport in a two-dimensional electron gas. Physical Review B, 2009, 79, .	1.1	5
86	Assessment of myofiber microstructure changes due to atrophy and recovery with timeâ€dependent diffusion MRI. NMR in Biomedicine, 2021, 34, e4534.	1.6	5
87	Kiselev and Novikov Reply:. Physical Review Letters, 2003, 91, .	2.9	2
88	Anomalous transport and memory in quantun dot arrays (Invited Paper). , 2005, , .		0
89	O2-04-01: Tract-tracing MEMRI study on a mouse model of tauopathy: Does manganese propagation reflect only axonal transport?. , 2010, 6, S102-S103.		0
90	Optimal target VOI size for accurate 4D coregistration of DCE-MRI. Proceedings of SPIE, 2016, , .	0.8	0

#	Article	IF	Citations
91	P2â€266: Early Versus Late Changes in White Matter Microstructure with Increasing Amyloid Deposition. Alzheimer's and Dementia, 2016, 12, P729.	0.4	0