

# Kamil Ugurbil

## List of Publications by Year in descending order

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Version: 2024-02-01

319  
papers

47,168  
citations

2311

98  
h-index

2439

197  
g-index

341  
all docs

341  
docs citations

341  
times ranked

28098  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | The WU-Minn Human Connectome Project: An overview. <i>NeuroImage</i> , 2013, 80, 62-79.   | 2.1  | 4,282     |
| 2  | A multi-modal parcellation of human cerebral cortex. <i>Nature</i> , 2016, 536, 171-178.  | 13.7 | 3,634     |
| 3  | Resting-state fMRI in the Human Connectome Project. <i>NeuroImage</i> , 2013, 80, 144-168.  | 2.1  | 1,367     |
| 4  | Multiband multislice GE-EPI at 7 tesla, with 16-fold acceleration using partial parallel imaging with application to high spatial and temporal whole-brain fMRI. <i>Magnetic Resonance in Medicine</i> , 2010, 63, 1144-1153. | 1.9  | 1,329     |
| 5  | Multiplexed Echo Planar Imaging for Sub-Second Whole Brain FMRI and Fast Diffusion Imaging. <i>PLoS ONE</i> , 2010, 5, e15710.  | 1.1  | 1,164     |
| 6  | ICA-based artefact removal and accelerated fMRI acquisition for improved resting state network imaging. <i>NeuroImage</i> , 2014, 95, 232-247.  | 2.1  | 1,148     |
| 7  | Advances in diffusion MRI acquisition and processing in the Human Connectome Project. <i>NeuroImage</i> , 2013, 80, 125-143.  | 2.1  | 851       |
| 8  | The Human Connectome Project's neuroimaging approach. <i>Nature Neuroscience</i> , 2016, 19, 1175-1187.   | 7.1  | 825       |
| 9  | Functional connectomics from resting-state fMRI. <i>Trends in Cognitive Sciences</i> , 2013, 17, 666-682.   | 4.0  | 802       |
| 10 | A positive-negative mode of population covariation links brain connectivity, demographics and behavior. <i>Nature Neuroscience</i> , 2015, 18, 1565-1567.   | 7.1  | 782       |
| 11 | Pushing spatial and temporal resolution for functional and diffusion MRI in the Human Connectome Project. <i>NeuroImage</i> , 2013, 80, 80-104.   | 2.1  | 769       |
| 12 | Temporally-independent functional modes of spontaneous brain activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 3131-3136.   | 3.3  | 696       |
| 13 | Sustained Negative BOLD, Blood Flow and Oxygen Consumption Response and Its Coupling to the Positive Response in the Human Brain. <i>Neuron</i> , 2002, 36, 1195-1210.  | 3.8  | 565       |
| 14 | Magnetic field and tissue dependencies of human brain longitudinal $^1\text{H}_2\text{O}$ relaxation in vivo. <i>Magnetic Resonance in Medicine</i> , 2007, 57, 308-318.  | 1.9  | 546       |
| 15 | Distinct basal ganglia territories are engaged in early and advanced motor sequence learning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 12566-12571.                | 3.3  | 521       |
| 16 | Analysis of fMRI and finger tracking training in subjects with chronic stroke. <i>Brain</i> , 2002, 125, 773-788.   | 3.7  | 505       |
| 17 | High-field fMRI unveils orientation columns in humans. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 10607-10612.   | 3.3  | 500       |
| 18 | Diffusion tensor fiber tracking shows distinct corticostriatal circuits in humans. <i>Annals of Neurology</i> , 2004, 55, 522-529.  | 2.8  | 498       |

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|----|---|-----|-----------|
| 19 | Motor Area Activity During Mental Rotation Studied by Time-Resolved Single-Trial fMRI. <i>Journal of Cognitive Neuroscience</i> , 2000, 12, 310-320.  | 1.1 | 461       |
| 20 | Evaluation of slice accelerations using multiband echo planar imaging at 3T. <i>NeuroImage</i> , 2013, 83, 991-1001.  | 2.1 | 442       |
| 21 | Imaging brain function in humans at 7 Tesla. <i>Magnetic Resonance in Medicine</i> , 2001, 45, 588-594.   | 1.9 | 421       |
| 22 | Mirror-Symmetric Tonal Maps in Human Primary Auditory Cortex. <i>Neuron</i> , 2003, 40, 859-869.  | 3.8 | 421       |
| 23 | B1 destructive interferences and spatial phase patterns at 7 T with a head transceiver array coil. <i>Magnetic Resonance in Medicine</i> , 2005, 54, 1503-1518.   | 1.9 | 416       |
| 24 | BOLD Based Functional MRI at 4 Tesla Includes a Capillary Bed Contribution: Echo-Planar Imaging Correlates with Previous Optical Imaging Using Intrinsic Signals. <i>Magnetic Resonance in Medicine</i> , 1995, 33, 453-459.              | 1.9 | 407       |
| 25 | 4 Tesla gradient recalled echo characteristics of photic stimulation-induced signal changes in the human primary visual cortex. <i>Magnetic Resonance in Medicine</i> , 1993, 30, 380-386.  | 1.9 | 405       |
| 26 | An integrative model for neuronal activity-induced signal changes for gradient and spin echo functional imaging. <i>NeuroImage</i> , 2009, 48, 150-165.   | 2.1 | 381       |
| 27 | Transmit and receive transmission line arrays for 7 Tesla parallel imaging. <i>Magnetic Resonance in Medicine</i> , 2005, 53, 434-445.  | 1.9 | 374       |
| 28 | Effect of Basal Conditions on the Magnitude and Dynamics of the Blood Oxygenation Level-Dependent fMRI Response. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2002, 22, 1042-1053.  | 2.4 | 338       |
| 29 | In vivo NAD assay reveals the intracellular NAD contents and redox state in healthy human brain and their age dependences. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 2876-2881. | 3.3 | 337       |
| 30 | Microvascular BOLD contribution at 4 and 7 T in the human brain: Gradient-echo and spin-echo fMRI with suppression of blood effects. <i>Magnetic Resonance in Medicine</i> , 2003, 49, 1019-1027.   | 1.9 | 331       |
| 31 | Reconstruction of the orientation distribution function in single- and multiple-shell q-ball imaging within constant solid angle. <i>Magnetic Resonance in Medicine</i> , 2010, 64, 554-566.  | 1.9 | 329       |
| 32 | In vivo <sup>1</sup> H NMR spectroscopy of the human brain at high magnetic fields: Metabolite quantification at 4T vs. 7T. <i>Magnetic Resonance in Medicine</i> , 2009, 62, 868-879.  | 1.9 | 316       |
| 33 | Contextual Feedback to Superficial Layers of V1. <i>Current Biology</i> , 2015, 25, 2690-2695.  | 1.8 | 303       |
| 34 | Extending the Human Connectome Project across ages: Imaging protocols for the Lifespan Development and Aging projects. <i>NeuroImage</i> , 2018, 183, 972-984.  | 2.1 | 290       |
| 35 | Local <i>B</i> <sub>1</sub> shimming for prostate imaging with transceiver arrays at 7T based on subject-dependent transmit phase measurements. <i>Magnetic Resonance in Medicine</i> , 2008, 59, 396-409.                                | 1.9 | 289       |
| 36 | Spin-echo fMRI in humans using high spatial resolutions and high magnetic fields. <i>Magnetic Resonance in Medicine</i> , 2003, 49, 655-664.  | 1.9 | 284       |

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|----|--|-----|-----------|
| 37 | Ocular Dominance in Human V1 Demonstrated by Functional Magnetic Resonance Imaging. Journal of Neurophysiology, 1997, 77, 2780-2787.   | 0.9 | 282       |
| 38 | Diffusion-weighted spin-echo fMRI at 9.4 T: Microvascular/tissue contribution to BOLD signal changes. Magnetic Resonance in Medicine, 1999, 42, 919-928.   | 1.9 | 279       |
| 39 | 9.4T human MRI: Preliminary results. Magnetic Resonance in Medicine, 2006, 56, 1274-1282.  | 1.9 | 278       |
| 40 | Spatio-temporal point-spread function of fMRI signal in human gray matter at 7 Tesla. NeuroImage, 2007, 35, 539-552.   | 2.1 | 266       |
| 41 | T1 weighted brain images at 7 Tesla unbiased for Proton Density, T2 contrast and RF coil receive B1 sensitivity with simultaneous vessel visualization. NeuroImage, 2009, 46, 432-446.                                   | 2.1 | 260       |
| 42 | Robust detection of ocular dominance columns in humans using Hahn Spin Echo BOLD functional MRI at 7 Tesla. NeuroImage, 2007, 37, 1161-1177.   | 2.1 | 258       |
| 43 | Sustained Neuronal Activation Raises Oxidative Metabolism to a New Steady-State Level: Evidence from 1H NMR Spectroscopy in the Human Visual Cortex. Journal of Cerebral Blood Flow and Metabolism, 2007, 27, 1055-1063. | 2.4 | 253       |
| 44 | Scan-specific robust artificial neural networks for k-space interpolation (RAKI) reconstruction: Database-free deep learning for fast imaging. Magnetic Resonance in Medicine, 2019, 81, 439-453.                        | 1.9 | 253       |
| 45 | A voxel-wise encoding model for early visual areas decodes mental images of remembered scenes. NeuroImage, 2015, 105, 215-228.   | 2.1 | 252       |
| 46 | Evaluation of the early response in fMRI in individual subjects using short stimulus duration. Magnetic Resonance in Medicine, 1997, 37, 877-884.  | 1.9 | 248       |
| 47 | Cortical layer-dependent BOLD and CBV responses measured by spin-echo and gradient-echo fMRI: Insights into hemodynamic regulation. NeuroImage, 2006, 30, 1149-1160.   | 2.1 | 239       |
| 48 | Whole-body imaging at 7T: Preliminary results. Magnetic Resonance in Medicine, 2009, 61, 244-248.  | 1.9 | 237       |
| 49 | The UNC/UMN Baby Connectome Project (BCP): An overview of the study design and protocol development. NeuroImage, 2019, 185, 891-905.   | 2.1 | 234       |
| 50 | Limitations of temporal resolution in functional MRI. Magnetic Resonance in Medicine, 1997, 37, 631-636.   | 1.9 | 233       |
| 51 | Heritability of fractional anisotropy in human white matter: A comparison of Human Connectome Project and ENIGMA-DTI data. NeuroImage, 2015, 111, 300-311.   | 2.1 | 227       |
| 52 | MR Imaging Contrast Enhancement Based on Intermolecular Zero Quantum Coherences. , 1998, 281, 247-251.   |     | 225       |
| 53 | Analysis of wave behavior in lossy dielectric samples at high field. Magnetic Resonance in Medicine, 2002, 47, 982-989.  | 1.9 | 225       |
| 54 | Respiration-induced BOLD fluctuations and their spatial distribution in the human brain at 7 Tesla. Magnetic Resonance in Medicine, 2002, 47, 888-895.   | 1.9 | 225       |

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|----|--|-----|-----------|
| 55 | Potential pitfalls of functional MRI using conventional gradient-recalled echo techniques. <i>NMR in Biomedicine</i> , 1994, 7, 69-74.   | 1.6 | 218       |
| 56 | Ultrahigh field magnetic resonance imaging and spectroscopy. <i>Magnetic Resonance Imaging</i> , 2003, 21, 1263-1281.  | 1.0 | 218       |
| 57 | Steady-State Cerebral Glucose Concentrations and Transport in the Human Brain. <i>Journal of Neurochemistry</i> , 1998, 70, 397-408.   | 2.1 | 215       |
| 58 | Quantitative imaging of energy expenditure in human brain. <i>NeuroImage</i> , 2012, 60, 2107-2117.  | 2.1 | 206       |
| 59 | Spatially constrained hierarchical parcellation of the brain with resting-state fMRI. <i>NeuroImage</i> , 2013, 76, 313-324.   | 2.1 | 203       |
| 60 | An Assessment of Current Brain Targets for Deep Brain Stimulation Surgery With Susceptibility-Weighted Imaging at 7 Tesla. <i>Neurosurgery</i> , 2010, 67, 1745-1756.  | 0.6 | 202       |
| 61 | Monitoring disease progression in transgenic mouse models of Alzheimer's disease with proton magnetic resonance spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 11906-11910. | 3.3 | 193       |
| 62 | Time-resolved fMRI of mental rotation. <i>NeuroReport</i> , 1997, 8, 3697-3702.  | 0.6 | 189       |
| 63 | Localized in vivo <sup>13</sup> C-NMR of Glutamate Metabolism in the Human Brain: Initial Results at 4 Tesla. <i>Developmental Neuroscience</i> , 1998, 20, 380-388.   | 1.0 | 188       |
| 64 | Encoding of Natural Sounds at Multiple Spectral and Temporal Resolutions in the Human Auditory Cortex. <i>PLoS Computational Biology</i> , 2014, 10, e1003412.   | 1.5 | 187       |
| 65 | The Lifespan Human Connectome Project in Aging: An overview. <i>NeuroImage</i> , 2019, 185, 335-348.   | 2.1 | 186       |
| 66 | Human primary visual cortex and lateral geniculate nucleus activation during visual imagery. <i>NeuroReport</i> , 1998, 9, 3669-3674.  | 0.6 | 185       |
| 67 | Signal and noise characteristics of Hahn SE and GE BOLD fMRI at 7 T in humans. <i>NeuroImage</i> , 2005, 24, 738-750.  | 2.1 | 182       |
| 68 | Parallel imaging performance as a function of field strength? An experimental investigation using electrodynamic scaling. <i>Magnetic Resonance in Medicine</i> , 2004, 52, 953-964.   | 1.9 | 179       |
| 69 | The BRAIN Initiative: developing technology to catalyse neuroscience discovery. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2015, 370, 20140164.   | 1.8 | 179       |
| 70 | How accurate is magnetic resonance imaging of brain function?. <i>Trends in Neurosciences</i> , 2003, 26, 108-114.   | 4.2 | 173       |
| 71 | Tightly coupled brain activity and cerebral ATP metabolic rate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 6409-6414.   | 3.3 | 173       |
| 72 | The nature of spatiotemporal changes in cerebral hemodynamics as manifested in functional magnetic resonance imaging. <i>Magnetic Resonance in Medicine</i> , 1997, 37, 511-518.   | 1.9 | 172       |

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|----|--|-----|-----------|
| 73 | Layer-Specific fMRI Reflects Different Neuronal Computations at Different Depths in Human V1. PLoS ONE, 2012, 7, e32536.   | 1.1 | 172       |
| 74 | Combined imagingâ€“histological study of cortical laminar specificity of fMRI signals. NeuroImage, 2006, 29, 879-887.  | 2.1 | 163       |
| 75 | Mapping the Organization of Axis of Motion Selective Features in Human Area MT Using High-Field fMRI. PLoS ONE, 2011, 6, e28716.   | 1.1 | 163       |
| 76 | A functional magnetic resonance imaging study of the role of left posterior superior temporal gyrus in speech production: implications for the explanation of conduction aphasia. Neuroscience Letters, 2000, 287, 156-160.      | 1.0 | 153       |
| 77 | Frequency preference and attention effects across cortical depths in the human primary auditory cortex. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 16036-16041.                 | 3.3 | 153       |
| 78 | Cortical Depth Dependent Functional Responses in Humans at 7T: Improved Specificity with 3D GRASE. PLoS ONE, 2013, 8, e60514.  | 1.1 | 151       |
| 79 | Metabolic and Hemodynamic Events after Changes in Neuronal Activity: Current Hypotheses, Theoretical Predictions and <i>in vivo</i> NMR Experimental Findings. Journal of Cerebral Blood Flow and Metabolism, 2009, 29, 441-463. | 2.4 | 143       |
| 80 | The Human Connectome Project 7 Tesla retinotopy dataset: Description and population receptive field analysis. Journal of Vision, 2018, 18, 23.   | 0.1 | 139       |
| 81 | A 16â€“channel combined loopâ€“dipole transceiver array for 7 T body MRI. Magnetic Resonance in Medicine, 2017, 77, 884-894.   | 1.9 | 138       |
| 82 | Zoomed Functional Imaging in the Human Brain at 7 Tesla with Simultaneous High Spatial and High Temporal Resolution. NeuroImage, 2002, 17, 272-286.  | 2.1 | 134       |
| 83 | Self-supervised learning of physics-guided reconstruction neural networks without fully sampled reference data. Magnetic Resonance in Medicine, 2020, 84, 3172-3191.   | 1.9 | 133       |
| 84 | Development of 17O NMR approach for fast imaging of cerebral metabolic rate of oxygen in rat brain at high field. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 13194-13199.        | 3.3 | 131       |
| 85 | Regional myocardial blood volume and flow: First-pass MR imaging with polylysine-Gd-DTPA. Journal of Magnetic Resonance Imaging, 1995, 5, 227-237.   | 1.9 | 130       |
| 86 | Mental Rotation Studied by Functional Magnetic Resonance Imaging at High Field (4 Tesla): Performance and Cortical Activation. Journal of Cognitive Neuroscience, 1997, 9, 419-432.  | 1.1 | 126       |
| 87 | Multiband accelerated spin-echo echo planar imaging with reduced peak RF power using time-shifted RF pulses. Magnetic Resonance in Medicine, 2013, 69, 1261-1267.  | 1.9 | 126       |
| 88 | Functional magnetic resonance imaging of cerebellar activation during the learning of a visuomotor dissociation task. Human Brain Mapping, 1996, 4, 210-226.   | 1.9 | 123       |
| 89 | Magnetic Resonance Imaging at Ultrahigh Fields. IEEE Transactions on Biomedical Engineering, 2014, 61, 1364-1379.  | 2.5 | 118       |
| 90 | Dynamics of motor-related functional integration during motor sequence learning. NeuroImage, 2010, 49, 759-766.  | 2.1 | 117       |

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|-----|---|-----|-----------|
| 91  | Tradeoffs in pushing the spatial resolution of fMRI for the 7T Human Connectome Project. <i>NeuroImage</i> , 2017, 154, 23-32.  | 2.1 | 117       |
| 92  | Sensitivity of single-voxel <sup>1</sup> H-MRS in investigating the metabolism of the activated human visual cortex at 7 T. <i>Magnetic Resonance Imaging</i> , 2006, 24, 343-348.  | 1.0 | 115       |
| 93  | The Human Connectome Project: A retrospective. <i>NeuroImage</i> , 2021, 244, 118543.   | 2.1 | 114       |
| 94  | Potential and feasibility of parallel MRI at high field. <i>NMR in Biomedicine</i> , 2006, 19, 368-378.   | 1.6 | 113       |
| 95  | Functional and Bioenergetic Consequences of Postinfarction Left Ventricular Remodeling in a New Porcine Model. <i>Circulation</i> , 1996, 94, 1089-1100.  | 1.6 | 113       |
| 96  | Functional magnetic resonance imaging of mental rotation and memory scanning: a multidimensional scaling analysis of brain activation patterns1Published on the World Wide Web on 24 February 1998.1. <i>Brain Research Reviews</i> , 1998, 26, 106-112.      | 9.1 | 112       |
| 97  | Study of tricarboxylic acid cycle flux changes in human visual cortex during hemifield visual stimulation using <sup>1</sup> H- <sup>13</sup> C MRS and fMRI. <i>Magnetic Resonance in Medicine</i> , 2001, 45, 349-355.                                      | 1.9 | 112       |
| 98  | Determination of blood longitudinal relaxation time (T1) at high magnetic field strengths. <i>Magnetic Resonance Imaging</i> , 2007, 25, 733-735.   | 1.0 | 111       |
| 99  | Functional magnetic resonance imaging of the human brain. <i>Journal of Neuroscience Methods</i> , 1997, 74, 229-243.   | 1.3 | 110       |
| 100 | Functional Magnetic Resonance Imaging as a Management Tool for Cerebral Arteriovenous Malformations. <i>Neurosurgery</i> , 1995, 37, 619-626.   | 0.6 | 108       |
| 101 | Investigation of the initial dip in fMRI at 7 Tesla. <i>NMR in Biomedicine</i> , 2001, 14, 408-412.   | 1.6 | 108       |
| 102 | Spatial relationship between neuronal activity and BOLD functional MRI. <i>NeuroImage</i> , 2004, 21, 876-885.  | 2.1 | 108       |
| 103 | Mechanisms underlying decoding at 7Â: Ocular dominance columns, broad structures, and macroscopic blood vessels in V1 convey information on the stimulated eye. <i>NeuroImage</i> , 2010, 49, 1957-1964.  | 2.1 | 105       |
| 104 | Hippocampal Sclerosis in Temporal Lobe Epilepsy: Findings at 7 T. <i>Radiology</i> , 2011, 261, 199-209.  | 3.6 | 104       |
| 105 | Regional neurochemical profiles in the human brain measured by <sup>1</sup> H MRS at 7â€T using local <sup>1</sup> B <sub>1</sub> shimming. <i>NMR in Biomedicine</i> , 2012, 25, 152-160.  | 1.6 | 104       |
| 106 | Measurement of unidirectional Pi to ATP flux in human visual cortex at 7 T by using in vivo <sup>31</sup> P magnetic resonance spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 14409-14414. | 3.3 | 98        |
| 107 | In vivo <sup>13</sup> C NMR spectroscopy and metabolic modeling in the brain: a practical perspective. <i>Magnetic Resonance Imaging</i> , 2006, 24, 527-539.   | 1.0 | 98        |
| 108 | Imaging at ultrahigh magnetic fields: History, challenges, and solutions. <i>NeuroImage</i> , 2018, 168, 7-32.  | 2.1 | 98        |

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|-----|--|-----|-----------|
| 109 | Functional imaging of brain activity in conscious monkeys responding to sexually arousing cues. <i>NeuroReport</i> , 2001, 12, 2231-2236.  | 0.6 | 96        |
| 110 | The Spatial Dependence of the Poststimulus Undershoot as Revealed by High-Resolution BOLD- and CBV-Weighted fMRI. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2006, 26, 634-644.                                  | 2.4 | 93        |
| 111 | The impact of ultra-high field MRI on cognitive and computational neuroimaging. <i>NeuroImage</i> , 2018, 168, 366-382.  | 2.1 | 93        |
| 112 | Noninvasive Measurements of [1-13C] Glycogen Concentrations and Metabolism in Rat Brain In Vivo. <i>Journal of Neurochemistry</i> , 2001, 73, 1300-1308.   | 2.1 | 92        |
| 113 | Validation of glutathione quantitation from STEAM spectra against edited 1H NMR spectroscopy at 4T: application to schizophrenia. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2005, 18, 276-282. | 1.1 | 92        |
| 114 | High resolution proton NMR studies of perfused rat hearts. <i>FEBS Letters</i> , 1984, 167, 73-78.   | 1.3 | 91        |
| 115 | The Effect of Stimulus-Response Compatibility on Cortical Motor Activation. <i>NeuroImage</i> , 2001, 13, 1-14.  | 2.1 | 91        |
| 116 | Hypercapnic normalization of BOLD fMRI: comparison across field strengths and pulse sequences. <i>NeuroImage</i> , 2004, 23, 613-624.  | 2.1 | 91        |
| 117 | Fusion in diffusion MRI for improved fibre orientation estimation: An application to the 3T and 7T data of the Human Connectome Project. <i>NeuroImage</i> , 2016, 134, 396-409.   | 2.1 | 91        |
| 118 | High-Resolution Mapping of Myeloarchitecture In Vivo: Localization of Auditory Areas in the Human Brain. <i>Cerebral Cortex</i> , 2015, 25, 3394-3405.   | 1.6 | 90        |
| 119 | Spatial organization of frequency preference and selectivity in the human inferior colliculus. <i>Nature Communications</i> , 2013, 4, 1386.   | 5.8 | 89        |
| 120 | Reconstructing the spectrotemporal modulations of real-life sounds from fMRI response patterns. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 4799-4804.               | 3.3 | 88        |
| 121 | Observation of resolved glucose signals in 1H NMR spectra of the human brain at 4 Tesla. <i>Magnetic Resonance in Medicine</i> , 1996, 36, 1-6.  | 1.9 | 87        |
| 122 | An Inverted-Microstrip Resonator for Human Head Proton MR Imaging at 7 Tesla. <i>IEEE Transactions on Biomedical Engineering</i> , 2005, 52, 495-504.  | 2.5 | 87        |
| 123 | A critical assessment of data quality and venous effects in sub-millimeter fMRI. <i>NeuroImage</i> , 2019, 189, 847-869.   | 2.1 | 87        |
| 124 | Fast interleaved echo-planar imaging with navigator: High resolution anatomic and functional images at 4 tesla. <i>Magnetic Resonance in Medicine</i> , 1996, 35, 895-902.   | 1.9 | 84        |
| 125 | Magnetic Resonance Studies of Brain Function and Neurochemistry. <i>Annual Review of Biomedical Engineering</i> , 2000, 2, 633-660.  | 5.7 | 84        |
| 126 | Increase of creatine kinase activity in the visual cortex of human brain during visual stimulation: A31p NMR magnetization transfer study. <i>Magnetic Resonance in Medicine</i> , 1997, 38, 551-557.                        | 1.9 | 81        |



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|-----|---|-----|-----------|
| 127 | A 32-channel lattice transmission line array for parallel transmit and receive MRI at 7 tesla. <i>Magnetic Resonance in Medicine</i> , 2010, 63, 1478-1485.   | 1.9 | 80        |
| 128 | ConnectomeDB—Sharing human brain connectivity data. <i>NeuroImage</i> , 2016, 124, 1102-1107.   | 2.1 | 80        |
| 129 | Toward imaging the body at 10.5 tesla. <i>Magnetic Resonance in Medicine</i> , 2017, 77, 434-443.   | 1.9 | 79        |
| 130 | BOLD fMRI and psychophysical measurements of contrast response to broadband images. <i>Vision Research</i> , 2004, 44, 669-683.   | 0.7 | 76        |
| 131 | Functional magnetic resonance imaging with intermolecular multiple-quantum coherences. <i>Magnetic Resonance Imaging</i> , 2000, 18, 489-494.   | 1.0 | 75        |
| 132 | Spatial dependence of the nonlinear BOLD response at short stimulus duration. <i>NeuroImage</i> , 2003, 18, 990-1000.   | 2.1 | 73        |
| 133 | Processing of Natural Sounds: Characterization of Multiplex Spectral Tuning in Human Auditory Cortex. <i>Journal of Neuroscience</i> , 2013, 33, 11888-11898.   | 1.7 | 73        |
| 134 | Comparison of pulsed arterial spin labeling encoding schemes and absolute perfusion quantification. <i>Magnetic Resonance Imaging</i> , 2009, 27, 1039-1045.  | 1.0 | 72        |
| 135 | Effects of movement predictability on cortical motor activation. <i>Neuroscience Research</i> , 1998, 32, 65-74.  | 1.0 | 71        |
| 136 | Myocardial Oxygenation During High Work States in Hearts With Postinfarction Remodeling. <i>Circulation</i> , 1999, 99, 942-948.  | 1.6 | 70        |
| 137 | A New Class of Gd-Based DO3A-Ethylamine-Derived Targeted Contrast Agents for MR and Optical Imaging. <i>Bioconjugate Chemistry</i> , 2006, 17, 773-780.   | 1.8 | 69        |
| 138 | Whole brain high-resolution functional imaging at ultra high magnetic fields: An application to the analysis of resting state networks. <i>NeuroImage</i> , 2011, 57, 1031-1044.                          | 2.1 | 68        |
| 139 | Lowering the thermal noise barrier in functional brain mapping with magnetic resonance imaging. <i>Nature Communications</i> , 2021, 12, 5181.  | 5.8 | 68        |
| 140 | Neural correlates of visual form and visual spatial processing. <i>Human Brain Mapping</i> , 1999, 8, 60-71.  | 1.9 | 67        |
| 141 | Anatomical correlates of the functional organization in the human occipitotemporal cortex. <i>Magnetic Resonance Imaging</i> , 2006, 24, 583-590.   | 1.0 | 67        |
| 142 | Toward 20T magnetic resonance for human brain studies: opportunities for discovery and neuroscience rationale. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2016, 29, 617-639. | 1.1 | 66        |
| 143 | Accurate T1 determination from inversion recovery images: Application to human brain at 4 Tesla. <i>Magnetic Resonance in Medicine</i> , 1994, 31, 445-449.   | 1.9 | 65        |
| 144 | Subchronic In Vivo Effects of a High Static Magnetic Field (9.4 T) in Rats. <i>Journal of Magnetic Resonance Imaging</i> , 2000, 12, 122-139.   | 1.9 | 65        |

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|-----|--|-----|-----------|
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