

Christoph Juchem

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

2,164
citations

257357

24
h-index

254106

43
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57
all docs

57
docs citations

57
times ranked

2075
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Preprocessing, analysis and quantification in single-voxel magnetic resonance spectroscopy: experts' consensus recommendations. <i>NMR in Biomedicine</i> , 2021, 34, e4257. | 1.6 | 196 |
| 2 | The effects of ketamine on prefrontal glutamate neurotransmission in healthy and depressed subjects. <i>Neuropsychopharmacology</i> , 2018, 43, 2154-2160. | 2.8 | 146 |
| 3 | Minimum Reporting Standards for in vivo Magnetic Resonance Spectroscopy (MRSinMRS): Experts' consensus recommendations. <i>NMR in Biomedicine</i> , 2021, 34, e4484. | 1.6 | 144 |
| 4 | Dynamic multi-coil shimming of the human brain at 7T. <i>Journal of Magnetic Resonance</i> , 2011, 212, 280-288. | 1.2 | 126 |
| 5 | Advanced single voxel ¹ H magnetic resonance spectroscopy techniques in humans: Experts' consensus recommendations. <i>NMR in Biomedicine</i> , 2021, 34, e4236. | 1.6 | 98 |
| 6 | Contribution of macromolecules to brain ¹ H MR spectra: Experts' consensus recommendations. <i>NMR in Biomedicine</i> , 2021, 34, e4393. | 1.6 | 92 |
| 7 | Magnetic field modeling with a set of individual localized coils. <i>Journal of Magnetic Resonance</i> , 2010, 204, 281-289. | 1.2 | 76 |
| 8 | B ₀ magnetic field homogeneity and shimming for in vivo magnetic resonance spectroscopy. <i>Analytical Biochemistry</i> , 2017, 529, 17-29. | 1.1 | 76 |
| 9 | Reproducibility measurement of glutathione, GABA, and glutamate: Towards in vivo neurochemical profiling of multiple sclerosis with MR spectroscopy at 7T. <i>Journal of Magnetic Resonance Imaging</i> , 2017, 45, 187-198. | 1.9 | 75 |
| 10 | Dynamic shimming of the human brain at 7 T. <i>Concepts in Magnetic Resonance Part B</i> , 2010, 37B, 116-128. | 0.3 | 67 |
| 11 | Dynamic multi-coil technique (DYNAMITE) shimming for echo-planar imaging of the human brain at 7 Tesla. <i>NeuroImage</i> , 2015, 105, 462-472. | 2.1 | 63 |
| 12 | Multislice ¹ H MRSI of the human brain at 7 T using dynamic B ₀ and B ₁ shimming. <i>Magnetic Resonance in Medicine</i> , 2012, 68, 662-670. | 1.9 | 62 |
| 13 | Elevated $\hat{\pm}$ -Hydroxybutyrate and Branched-Chain Amino Acid Levels Predict Deterioration of Glycemic Control in Adolescents. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2017, 102, 2473-2481. | 1.8 | 62 |
| 14 | B ₀ shimming for in vivo magnetic resonance spectroscopy: Experts' consensus recommendations. <i>NMR in Biomedicine</i> , 2021, 34, e4350. | 1.6 | 60 |
| 15 | Magnetic field homogenization of the human prefrontal cortex with a set of localized electrical coils. <i>Magnetic Resonance in Medicine</i> , 2010, 63, 171-180. | 1.9 | 58 |
| 16 | Imaging the intratumoral-peritumoral extracellular pH gradient of gliomas. <i>NMR in Biomedicine</i> , 2016, 29, 309-319. | 1.6 | 52 |
| 17 | Combined passive and active shimming for in vivo MR spectroscopy at high magnetic fields. <i>Journal of Magnetic Resonance</i> , 2006, 183, 278-289. | 1.2 | 51 |
| 18 | Multicoil shimming of the mouse brain. <i>Magnetic Resonance in Medicine</i> , 2011, 66, 893-900. | 1.9 | 45 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Across-vendor standardization of semi-LASER for single-voxel MRS at 3T. NMR in Biomedicine, 2021, 34, e4218. | 1.6 | 43 |
| 20 | Quantifying the Metabolic Signature of Multiple Sclerosis by in vivo Proton Magnetic Resonance Spectroscopy: Current Challenges and Future Outlook in the Translation From Proton Signal to Diagnostic Biomarker. Frontiers in Neurology, 2019, 10, 1173. | 1.1 | 40 |
| 21 | Multi-coil magnetic field modeling. Journal of Magnetic Resonance, 2013, 236, 95-104. | 1.2 | 34 |
| 22 | High-field localized ¹ H NMR spectroscopy in the anesthetized and in the awake monkey. Magnetic Resonance Imaging, 2004, 22, 1361-1372. | 1.0 | 31 |
| 23 | In vivo O ₂ space imaging with a dedicated 12 cm ² insert coil on a human 3T scanner using phase map calibration. Magnetic Resonance in Medicine, 2013, 69, 444-455. | 1.9 | 31 |
| 24 | Magnetic resonance Spectrum simulator (MARSS), a novel software package for fast and computationally efficient basis set simulation. NMR in Biomedicine, 2021, 34, e4129. | 1.6 | 31 |
| 25 | DYNAMIC Multi-coil Technique (DYNAMITE) shimming of the rat brain at 11.7%T. NMR in Biomedicine, 2014, 27, 897-906. | 1.6 | 30 |
| 26 | Frequency drift in MR spectroscopy at 3T. NeuroImage, 2021, 241, 118430. | 2.1 | 28 |
| 27 | INSPECTOR: free software for magnetic resonance spectroscopy data inspection, processing, simulation and analysis. Scientific Reports, 2021, 11, 2094. | 1.6 | 27 |
| 28 | Brain region and activity-dependent properties of M for calibrated fMRI. NeuroImage, 2016, 125, 848-856. | 2.1 | 26 |
| 29 | Dephasing optimization through coherence order pathway selection (DOTCOPS) for improved crusher schemes in MR spectroscopy. Magnetic Resonance in Medicine, 2019, 81, 2209-2222. | 1.9 | 26 |
| 30 | Simultaneous EEG and fMRI in the macaque monkey at 4.7 Tesla. Magnetic Resonance Imaging, 2006, 24, 335-342. | 1.0 | 22 |
| 31 | Region and volume dependencies in spectral line width assessed by ¹ H 2D MR chemical shift imaging in the monkey brain at 7 T. Magnetic Resonance Imaging, 2004, 22, 1373-1383. | 1.0 | 21 |
| 32 | Theoretical description of modern ¹ H in Vivo magnetic resonance spectroscopic pulse sequences. Journal of Magnetic Resonance Imaging, 2020, 51, 1008-1029. | 1.9 | 18 |
| 33 | CHAPTER 4. B ₀ Shimming Technology. New Developments in NMR, 2016, , 166-207. | 0.1 | 16 |
| 34 | Multi-slice MRI with the dynamic multi-coil technique. NMR in Biomedicine, 2015, 28, 1526-1534. | 1.6 | 15 |
| 35 | Quantification of glutathione transverse relaxation time T ₂ using echo time extension with variable refocusing selectivity and symmetry in the human brain at 7 Tesla. Journal of Magnetic Resonance, 2018, 290, 1-11. | 1.2 | 15 |
| 36 | Are Cram r-Rao lower bounds an accurate estimate for standard deviations in in vivo magnetic resonance spectroscopy?. NMR in Biomedicine, 2021, 34, e4521. | 1.6 | 15 |

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|----|--|-----|-----------|
| 37 | Concentration and effective $T_{2\text{ relaxation times of macromolecules at 3T. Magnetic Resonance in Medicine, 2020, 84, 2327-2337.}$ | 1.9 | 15 |
| 38 | High-resolution ^1H chemical shift imaging in the monkey visual cortex. <i>Magnetic Resonance in Medicine</i> , 2005, 54, 1541-1546. | 1.9 | 14 |
| 39 | B_0 shimming of the human heart at 7T. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 182-196. | 1.9 | 13 |
| 40 | A semi-LASER, single-voxel spectroscopic sequence with a minimal echo time of 20.1 ms in the human brain at 3 T. <i>NMR in Biomedicine</i> , 2020, 33, e4324. | 1.6 | 12 |
| 41 | ^1H -MRS of the macaque monkey primary visual cortex at 7 T: strategies and pitfalls of shimming at the brain surface. <i>Magnetic Resonance Imaging</i> , 2007, 25, 902-912. | 1.0 | 11 |
| 42 | On the way to routine cardiac MRI at 7 Tesla - a pilot study on consecutive 84 examinations. <i>PLoS ONE</i> , 2021, 16, e0252797. | 1.1 | 11 |
| 43 | Simultaneous optimization of crusher and phase cycling schemes for magnetic resonance spectroscopy: an extension of dephasing optimization through coherence order pathway selection. <i>Magnetic Resonance in Medicine</i> , 2020, 83, 391-402. | 1.9 | 10 |
| 44 | Development and validation of 3D MP-RSFP to enable MRI in inhomogeneous magnetic fields. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 831-844. | 1.9 | 9 |
| 45 | In vivo evidence of differential frontal cortex metabolic abnormalities in progressive and relapsing-remitting multiple sclerosis. <i>NMR in Biomedicine</i> , 2021, 34, e4590. | 1.6 | 9 |
| 46 | The public multi-coil information (PUMCIN) policy. <i>Magnetic Resonance in Medicine</i> , 2017, 78, 2042-2047. | 1.9 | 8 |
| 47 | Dynamic multi-coil tailored excitation for transmit B_1 correction at 7 Tesla. <i>Magnetic Resonance in Medicine</i> , 2016, 76, 83-93. | 1.9 | 6 |
| 48 | Combined imaging and shimming with the dynamic multi-coil technique. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 1424-1433. | 1.9 | 6 |
| 49 | Elevated homocarnosine and GABA in subject on isoniazid as assessed through ^1H MRS at 7T. <i>Analytical Biochemistry</i> , 2020, 599, 113738. | 1.1 | 6 |
| 50 | Dynamic multicoil technique (DYNAMITE) MRI on human brain. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 2953-2963. | 1.9 | 5 |
| 51 | Basis of Magnetic Resonance. , 2014, , 3-14. | | 4 |
| 52 | Hippocampal single-voxel MR spectroscopy with a long echo time at 3 T using semi-LASER sequence. <i>NMR in Biomedicine</i> , 2021, 34, e4538. | 1.6 | 3 |
| 53 | FAMASITO: FASTMAP Shim Tool towards user-friendly single-step B_0 homogenization. <i>NMR in Biomedicine</i> , 2021, 34, e4486. | 1.6 | 2 |
| 54 | UTE-SPECIAL for 3D localization at an echo time of 4 ms on a clinical 3T scanner. <i>Journal of Magnetic Resonance</i> , 2020, 311, 106670. | 1.2 | 1 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | High-resolution simulation of B_0 field conditions in the human heart from segmented computed tomography images. NMR in Biomedicine, 2022, 35, e4739. | 1.6 | 1 |