

# Moritz Zaiss

## List of Publications by Year in descending order

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68  
papers

3,652  
citations

117625

34  
h-index

138484

58  
g-index

70  
all docs

70  
docs citations

70  
times ranked

1945  
citing authors

#	ARTICLE	IF	CITATIONS
1	Linear projection-based chemical exchange saturation transfer parameter estimation. <i>NMR in Biomedicine</i> , 2023, 36, e4697.	2.8	7
2	7 tricks for 7 T CEST: Improving the reproducibility of multipool evaluation provides insights into the effects of age and the early stages of Parkinson's disease. <i>NMR in Biomedicine</i> , 2023, 36, e4717.	2.8	9
3	An end-to-end AI-based framework for automated discovery of rapid CEST/MT MRI acquisition protocols and molecular parameter quantification (AutoCEST). <i>Magnetic Resonance in Medicine</i> , 2022, 87, 2792-2810.	3.0	22
4	Mapping intracellular pH in tumors using amide and guanidyl CEST-MRI at 9.4 T. <i>Magnetic Resonance in Medicine</i> , 2022, 87, 2436-2452.	3.0	11
5	A fast multislice sequence for 3D MRI-CEST pH imaging. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 1335-1349.	3.0	31
6	On the interference from agar in chemical exchange saturation transfer MRI parameter optimization in model solutions. <i>NMR in Biomedicine</i> , 2021, 34, e4403.	2.8	5
7	Paramagnetic chemical exchange saturation transfer agents and their perspectives for application in magnetic resonance imaging. <i>International Reviews in Physical Chemistry</i> , 2021, 40, 51-79.	2.3	14
8	Whole-brain quantitative CEST MRI at 7T using parallel transmission methods and correction. <i>Magnetic Resonance in Medicine</i> , 2021, 86, 346-362.	3.0	11
9	Pulse-CEST: Towards multi-site multi-vendor compatibility and reproducibility of CEST experiments using an open-source sequence standard. <i>Magnetic Resonance in Medicine</i> , 2021, 86, 1845-1858.	3.0	33
10	CEST MR-Fingerprinting: Practical considerations and insights for acquisition schedule design and improved reconstruction. <i>Magnetic Resonance in Medicine</i> , 2020, 83, 462-478.	3.0	28
11	A novel normalization for amide proton transfer CEST MRI to correct for fat signal-induced artifacts: application to human breast cancer imaging. <i>Magnetic Resonance in Medicine</i> , 2020, 83, 920-934.	3.0	26
12	DeepCEST 3T: Robust MRI parameter determination and uncertainty quantification with neural networks' application to CEST imaging of the human brain at 3T. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 450-466.	3.0	48
13	Dynamic glucose-enhanced (DGE) MRI in the human brain at 7 T with reduced motion-induced artifacts based on quantitative R <sub>1</sub> -mapping. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 182-191.	3.0	11
14	Structure or Exchange? On the Feasibility of Chemical Exchange Detection with Balanced Steady-State Free Precession in Tissue - An In Vitro Study. <i>NMR in Biomedicine</i> , 2020, 33, e4200.	2.8	5
15	Whole brain snapshot CEST at 3T using 3D-EPI: Aiming for speed, volume, and homogeneity. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 2469-2483.	3.0	25
16	Optimized dualCEST-MRI for imaging of endogenous bulk mobile proteins in the human brain. <i>NMR in Biomedicine</i> , 2020, 33, e4262.	2.8	3
17	Inert macrocyclic Eu <sup>3+</sup> complex with affirmative paraCEST features. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 2274-2286.	6.0	14
18	Dynamic Interactions in Synthetic Receptors: A Guest Exchange Saturation Transfer Study. <i>Chemistry - A European Journal</i> , 2019, 25, 1687-1690.	3.3	11

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19	Assessment of frequency drift on CEST MRI and dynamic correction: application to gagCEST at 7 T. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 573-582.	3.0	35
20	Chemical exchange saturation transfer (CEST) signal intensity at 7T MRI of WHO IV <sup>A</sup> gliomas is dependent on the anatomic location. <i>Journal of Magnetic Resonance Imaging</i> , 2019, 49, 777-785.	3.4	27
21	Adaptive denoising for chemical exchange saturation transfer MR imaging. <i>NMR in Biomedicine</i> , 2019, 32, e4133.	2.8	32
22	Quantification of hydroxyl exchange of D <sup>2</sup> O-glucose at physiological conditions for optimization of glucoCEST MRI at 3, 7 and 9.4 Tesla. <i>NMR in Biomedicine</i> , 2019, 32, e4113.	2.8	49
23	T1 <sup>ρ</sup> -based dynamic glucose-enhanced (DGE <sup>2</sup> ) MRI at 3 T: method development and early clinical experience in the human brain. <i>Magnetic Resonance in Medicine</i> , 2019, 82, 1832-1847.	3.0	43
24	Whole-brain snapshot CEST imaging at 7 T using 3D-EPI. <i>Magnetic Resonance in Medicine</i> , 2019, 82, 1741-1752.	3.0	27
25	Multiple interleaved mode saturation (MIMOSA) for B <sub>1</sub> inhomogeneity mitigation in chemical exchange saturation transfer. <i>Magnetic Resonance in Medicine</i> , 2019, 82, 693-705.	3.0	22
26	Relaxation-compensated APT and rNOE CEST-MRI of human brain tumors at 3 T. <i>Magnetic Resonance in Medicine</i> , 2019, 82, 622-632.	3.0	49
27	DeepCEST: 9.4 T Chemical exchange saturation transfer MRI contrast predicted from 3T data – a proof of concept study. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 3901-3914.	3.0	30
28	Relaxation-compensated amide proton transfer (APT) MRI signal intensity is associated with survival and progression in high-grade glioma patients. <i>European Radiology</i> , 2019, 29, 4957-4967.	4.5	64
29	CEST imaging at 9.4 T using adjusted adiabatic spin-lock pulses for on- and off-resonant T1 <sup>ρ</sup> -dominated Z <sup>+</sup> spectrum acquisition. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 275-290.	3.0	18
30	Possible artifacts in dynamic CEST MRI due to motion and field alterations. <i>Journal of Magnetic Resonance</i> , 2019, 298, 16-22.	2.1	41
31	3D gradient echo snapshot CEST MRI with low power saturation for human studies at 3T. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 2412-2423.	3.0	54
32	PRO-QUEST: a rapid assessment method based on progressive saturation for quantifying exchange rates using saturation times in CEST. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 1638-1654.	3.0	9
33	Dual-frequency irradiation CEST-MRI of endogenous bulk mobile proteins. <i>NMR in Biomedicine</i> , 2018, 31, e3920.	2.8	18
34	Snapshot-CEST: Optimizing spiral-centric-reordered gradient echo acquisition for fast and robust 3D CEST MRI at 9.4T. <i>NMR in Biomedicine</i> , 2018, 31, e3879.	2.8	76
35	Assessing the predictability of IDH mutation and MGMT methylation status in glioma patients using relaxation-compensated multipool CEST MRI at 7.0 T. <i>Neuro-Oncology</i> , 2018, 20, 1661-1671.	1.2	119
36	QUEST and QUEST revisited – fast and accurate quantitative CEST experiments. <i>Magnetic Resonance in Medicine</i> , 2018, 79, 1708-1721.	3.0	82

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37	Chemical exchange saturation transfer MRI serves as predictor of early progression in glioblastoma patients. <i>Oncotarget</i> , 2018, 9, 28772-28783.	1.8	63
38	Comparison of B <sub>0</sub> versus B <sub>0</sub> and B <sub>1</sub> field inhomogeneity correction for glycosaminoglycan chemical exchange saturation transfer imaging. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2018, 31, 645-651.	2.0	8
39	Pros and cons of ultra-high-field MRI/MRS for human application. <i>Progress in Nuclear Magnetic Resonance Spectroscopy</i> , 2018, 109, 1-50.	7.5	331
40	Chemical exchange saturation transfer MRI contrast in the human brain at 9.4 T. <i>NeuroImage</i> , 2018, 179, 144-155.	4.2	32
41	Downfield NOE-suppressed amide CEST MRI at 7 Tesla provides a unique contrast in human glioblastoma. <i>Magnetic Resonance in Medicine</i> , 2017, 77, 196-208.	3.0	108
42	Simultaneous mapping of water shift and B <sub>1</sub> (WASABI) Application to field inhomogeneity correction of CEST MRI data. <i>Magnetic Resonance in Medicine</i> , 2017, 77, 571-580.	3.0	99
43	Measurement of APT using a combined CERT-AREX approach with varying duty cycles. <i>Magnetic Resonance Imaging</i> , 2017, 42, 22-31.	1.8	18
44	T1-weighted Dynamic Glucose-enhanced MR Imaging in the Human Brain. <i>Radiology</i> , 2017, 285, 914-922.	7.3	72
45	Spectrally Undiscerned Isomers Might Lead to Erroneous Determination of Water Exchange Rates of paraCEST Eu(III) Agents. <i>Inorganic Chemistry</i> , 2017, 56, 7737-7745.	4.0	17
46	On the transmit field inhomogeneity correction of relaxation-compensated amide and NOE CEST effects at 7 T. <i>NMR in Biomedicine</i> , 2017, 30, e3687.	2.8	34
47	Aggregation-induced changes in the chemical exchange saturation transfer (CEST) signals of proteins. <i>NMR in Biomedicine</i> , 2017, 30, e3665.	2.8	32
48	Adiabatically prepared spin-lock approach for T1-based dynamic glucose enhanced MRI at ultrahigh fields. <i>Magnetic Resonance in Medicine</i> , 2017, 78, 215-225.	3.0	71
49	Signature of protein unfolding in chemical exchange saturation transfer imaging. <i>NMR in Biomedicine</i> , 2015, 28, 906-913.	2.8	60
50	Amide proton transfer of carnosine in aqueous solution studied <i>in vitro</i> by WEX and CEST experiments. <i>NMR in Biomedicine</i> , 2015, 28, 1097-1103.	2.8	9
51	Relaxation-compensated CEST MRI at 7 T for mapping of creatine content and pH – preliminary application in human muscle tissue <i>in vivo</i> . <i>NMR in Biomedicine</i> , 2015, 28, 1402-1412.	2.8	48
52	B <sub>1</sub> correction in amide proton transfer imaging: indication of the influence of transcytolemmal water exchange on CEST measurements. <i>NMR in Biomedicine</i> , 2015, 28, 1655-1662.	2.8	16
53	Imaging of amide proton transfer and nuclear Overhauser enhancement in ischemic stroke with corrections for competing effects. <i>NMR in Biomedicine</i> , 2015, 28, 200-209.	2.8	44
54	Quantitative pulsed CEST-MRI using $\rho$ -plots. <i>NMR in Biomedicine</i> , 2015, 28, 1196-1208.	2.8	43

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55	Nuclear Overhauser Enhancement Imaging of Glioblastoma at 7 Tesla: Region Specific Correlation with Apparent Diffusion Coefficient and Histology. PLoS ONE, 2015, 10, e0121220.	2.5	36
56	A combined analytical solution for chemical exchange saturation transfer and semi-solid magnetization transfer. NMR in Biomedicine, 2015, 28, 217-230.	2.8	111
57	Relaxation-compensated CEST-MRI of the human brain at 7 T: Unbiased insight into NOE and amide signal changes in human glioblastoma. NeuroImage, 2015, 112, 180-188.	4.2	165
58	Correction of B <sub>1</sub> inhomogeneities for relaxation-compensated CEST imaging at 7 T. NMR in Biomedicine, 2015, 28, 529-537.	2.8	180
59	Towards quantification of pulsed spinlock and CEST at clinical MR scanners: an analytical interleaved saturation-relaxation (ISAR) approach. NMR in Biomedicine, 2015, 28, 40-53.	2.8	36
60	On the origins of chemical exchange saturation transfer (CEST) contrast in tumors at 9.4 T. NMR in Biomedicine, 2014, 27, 406-416.	2.8	133
61	Inverse Z-spectrum analysis for spillover-, MT-, and T <sub>1</sub> -corrected steady-state pulsed CEST-MRI - application to pH-weighted MRI of acute stroke. NMR in Biomedicine, 2014, 27, 240-252.	2.8	234
62	Characterization of creatine guanidinium proton exchange by water-exchange (WEX) spectroscopy for absolute-pH CEST imaging <i>in vitro</i> . NMR in Biomedicine, 2014, 27, 507-518.	2.8	72
63	Nuclear Overhauser Enhancement Mediated Chemical Exchange Saturation Transfer Imaging at 7 Tesla in Glioblastoma Patients. PLoS ONE, 2014, 9, e104181.	2.5	62
64	Exchange-dependent relaxation in the rotating frame for slow and intermediate exchange modeling off-resonant spinlock and chemical exchange saturation transfer. NMR in Biomedicine, 2013, 26, 507-518.	2.8	178
65	MR imaging of protein folding <i>in vitro</i> employing Nuclear Overhauser-mediated saturation transfer. NMR in Biomedicine, 2013, 26, 1815-1822.	2.8	72
66	Analytical solution for the depolarization of hyperpolarized nuclei by chemical exchange saturation transfer between free and encapsulated xenon (HyperCEST). Journal of Chemical Physics, 2012, 136, 144106.	3.0	57
67	Non-contrast-enhanced MRI of the pulmonary blood volume using two-compartment modeled T <sub>1</sub> -relaxation. Journal of Magnetic Resonance Imaging, 2012, 36, 397-404.	3.4	13
68	Optimization of pulse train presaturation for CEST imaging in clinical scanners. Magnetic Resonance in Medicine, 2011, 65, 1620-1629.	3.0	72