Martin Uecker

List of Publications by Year
in descending order

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62 papers	4,133 citations	201674 27 h-index	133252 59 g-index
62 all docs	62 docs citations	62 times ranked	3434 citing authors

#	Article	IF	Citations
1	ESPIRiTâ€"an eigenvalue approach to autocalibrating parallel MRI: Where SENSE meets GRAPPA. Magnetic Resonance in Medicine, 2014, 71, 990-1001.	3.0	864
2	Undersampled radial MRI with multiple coils. Iterative image reconstruction using a total variation constraint. Magnetic Resonance in Medicine, 2007, 57, 1086-1098.	3.0	645
3	Realâ€time MRI at a resolution of 20 ms. NMR in Biomedicine, 2010, 23, 986-994.	2.8	319
4	Image reconstruction by regularized nonlinear inversionâ€"Joint estimation of coil sensitivities and image content. Magnetic Resonance in Medicine, 2008, 60, 674-682.	3.0	183
5	T₂ shuffling: Sharp, multicontrast, volumetric fast spinâ€echo imaging. Magnetic Resonance in Medicine, 2017, 77, 180-195.	3.0	133
6	Model-Based Iterative Reconstruction for Radial Fast Spin-Echo MRI. IEEE Transactions on Medical Imaging, 2009, 28, 1759-1769.	8.9	131
7	Modelâ€based nonlinear inverse reconstruction for T2 mapping using highly undersampled spinâ€echo MRI. Journal of Magnetic Resonance Imaging, 2011, 34, 420-428.	3.4	125
8	Free-breathing pediatric MRI with nonrigid motion correction and acceleration. Journal of Magnetic Resonance Imaging, 2015, 42, 407-420.	3.4	117
9	Realâ€time MRI of speaking at a resolution of 33 ms: Undersampled radial FLASH with nonlinear inverse reconstruction. Magnetic Resonance in Medicine, 2013, 69, 477-485.	3.0	112
10	Real-time cardiovascular magnetic resonance at high temporal resolution: radial FLASH with nonlinear inverse reconstruction. Journal of Cardiovascular Magnetic Resonance, 2010, 12, 39.	3.3	101
11	Suppression of MRI Truncation Artifacts Using Total Variation Constrained Data Extrapolation. International Journal of Biomedical Imaging, 2008, 2008, 1-8.	3.9	100
12	Comprehensive motionâ€compensated highly accelerated 4D flow MRI with ferumoxytol enhancement for pediatric congenital heart disease. Journal of Magnetic Resonance Imaging, 2016, 43, 1355-1368.	3.4	92
13	Nonlinear inverse reconstruction for realâ€time MRI of the human heart using undersampled radial FLASH. Magnetic Resonance in Medicine, 2010, 63, 1456-1462.	3.0	90
14	Parallel imaging with nonlinear reconstruction using variational penalties. Magnetic Resonance in Medicine, 2012, 67, 34-41.	3.0	81
15	Fast pediatric 3D freeâ€breathing abdominal dynamic contrast enhanced MRI with high spatiotemporal resolution. Journal of Magnetic Resonance Imaging, 2015, 41, 460-473.	3.4	80
16	Realâ€time phaseâ€contrast MRI of cardiovascular blood flow using undersampled radial fast lowâ€angle shot and nonlinear inverse reconstruction. NMR in Biomedicine, 2012, 25, 917-924.	2.8	75
17	Exercise Stress Real-Time Cardiac Magnetic Resonance Imaging for Noninvasive Characterization of Heart Failure With Preserved Ejection Fraction. Circulation, 2021, 143, 1484-1498.	1.6	69
18	Modelâ€based <scp>T</scp>₁ mapping with sparsity constraints using singleâ€shot inversionâ€recovery radial <scp>FLASH</scp>. Magnetic Resonance in Medicine, 2018, 79, 730-740.	3.0	59

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19	Fast T2 Mapping With Improved Accuracy Using Undersampled Spin-Echo MRI and Model-Based Reconstructions With a Generating Function. IEEE Transactions on Medical Imaging, 2014, 33, 2213-2222.	8.9	51
20	Robust 4D flow denoising using divergenceâ€free wavelet transform. Magnetic Resonance in Medicine, 2015, 73, 828-842.	3.0	46
21	Targeted endomyocardial biopsy guided by real-time cardiovascular magnetic resonance. Journal of Cardiovascular Magnetic Resonance, 2016, 19, 45.	3.3	44
22	Real-time MRI: recent advances using radial FLASH. Imaging in Medicine, 2012, 4, 461-476.	0.0	43
23	Correction of gradientâ€induced phase errors in radial MRI. Magnetic Resonance in Medicine, 2014, 71, 308-312.	3.0	40
24	Comprehensive Multi-Dimensional MRI for the Simultaneous Assessment of Cardiopulmonary Anatomy and Physiology. Scientific Reports, 2017, 7, 5330.	3.3	36
25	Real-Time Magnetic Resonance Imaging. Investigative Radiology, 2019, 54, 757-766.	6.2	35
26	On the Temporal Fidelity of Nonlinear Inverse Reconstructions for Real- Time MRI â€“ The Motion Challenge. The Open Medical Imaging Journal, 2014, 8, 1-7.	0.8	35
27	A Multi-GPU Programming Library for Real-Time Applications. Lecture Notes in Computer Science, 2012, , 114-128.	1.3	32
28	Model-based myocardial T1 mapping with sparsity constraints using single-shot inversion-recovery radial FLASH cardiovascular magnetic resonance. Journal of Cardiovascular Magnetic Resonance, 2019, 21, 60.	3.3	24
29	Simultaneous multiâ€slice MRI using cartesian and radial FLASH and regularized nonlinear inversion: SMSâ€NLINV. Magnetic Resonance in Medicine, 2018, 79, 2057-2066.	3.0	22
30	CGâ€SENSE revisited: Results from the first ISMRM reproducibility challenge. Magnetic Resonance in Medicine, 2021, 85, 1821-1839.	3.0	22
31	Accelerated Computing in Magnetic Resonance Imaging: Real-Time Imaging Using Nonlinear Inverse Reconstruction. Computational and Mathematical Methods in Medicine, 2017, 2017, 1-11.	1.3	21
32	Estimating absoluteâ€phase maps using ESPIRiT and virtual conjugate coils. Magnetic Resonance in Medicine, 2017, 77, 1201-1207.	3.0	20
33	Cardiac and Respiratory Self-Gating in Radial MRI Using an Adapted Singular Spectrum Analysis (SSA-FARY). IEEE Transactions on Medical Imaging, 2020, 39, 3029-3041.	8.9	19
34	ENLIVE: An Efficient Nonlinear Method for Calibrationless and Robust Parallel Imaging. Scientific Reports, 2019, 9, 3034.	3.3	18
35	Simple autoâ€calibrated gradient delay estimation from few spokes using Radial Intersections (RING). Magnetic Resonance in Medicine, 2019, 81, 1898-1906.	3.0	18
36	Real-time cardiovascular magnetic resonance T1 and extracellular volume fraction mapping for tissue characterisation in aortic stenosis. Journal of Cardiovascular Magnetic Resonance, 2020, 22, 46.	3.3	18

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37	Inverse reconstruction method for segmented multishot diffusionâ€weighted MRI with multiple coils. Magnetic Resonance in Medicine, 2009, 62, 1342-1348.	3.0	17
38	Accelerating Non-Cartesian MRI Reconstruction Convergence Using k-Space Preconditioning. IEEE Transactions on Medical Imaging, 2020, 39, 1646-1654.	8.9	15
39	Physics-based reconstruction methods for magnetic resonance imaging. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200196.	3.4	15
40	Fast comprehensive singleâ€shot fourâ€dimensional pediatric knee MRI with T₂ shuffling. Journal of Magnetic Resonance Imaging, 2017, 45, 1700-1711.	3.4	14
41	Modelâ€based reconstruction for simultaneous multiâ€slice mapping using singleâ€shot inversionâ€recovery radial FLASH. Magnetic Resonance in Medicine, 2021, 85, 1258-1271.	3.0	14
42	Intra- and interobserver variability in the diagnosis of GERD by real-time MRI. European Journal of Radiology, 2018, 104, 14-19.	2.6	12
43	RT-CMR Imaging for Noninvasive Characterization of HFpEF. JACC: Cardiovascular Imaging, 2022, 15, 943-945.	5.3	12
44	Imaging of arrhythmia: Real-time cardiac magnetic resonance imaging in atrial fibrillation. European Journal of Radiology Open, 2022, 9, 100404.	1.6	12
45	Chemical shift separation with controlled aliasing for hyperpolarized ¹³C metabolic imaging. Magnetic Resonance in Medicine, 2015, 74, 978-989.	3.0	11
46	Impaired Exercise Tolerance in Repaired Tetralogy of Fallot Is Associated With Impaired Biventricular Contractile Reserve: An Exercise-Stress Real-Time Cardiovascular Magnetic Resonance Study. Circulation: Cardiovascular Imaging, 2021, 14, e011823.	2.6	10
47	Accelerated wholeâ€heart MR angiography using a variableâ€density poissonâ€disc undersampling pattern and compressed sensing reconstruction. Magnetic Resonance in Medicine, 2018, 79, 761-769.	3.0	9
48	Dynamic water/fat separation and inhomogeneity mappingâ€”joint estimation using undersampled tripleâ€echo multiâ€spoke radial FLASH. Magnetic Resonance in Medicine, 2019, 82, 1000-1011.	3.0	9
49	Real-time MRI for the dynamic assessment of fundoplication failure in patients with gastroesophageal reflux disease. European Radiology, 2019, 29, 4691-4698.	4.5	9
50	Hiatal hernias in patients with GERD-like symptoms: evaluation of dynamic real-time MRI vs endoscopy. European Radiology, 2019, 29, 6653-6661.	4.5	8
51	Joint T1 and T2 Mapping With Tiny Dictionaries and Subspace-Constrained Reconstruction. IEEE Transactions on Medical Imaging, 2020, 39, 1008-1014.	8.9	8
52	Parallel magnetic resonance imaging as approximation in a reproducing kernel Hilbert space. Inverse Problems, 2015, 31, 045008.	2.0	7
53	Frequencyâ€modulated SSFP with radial sampling and subspace reconstruction: A timeâ€efficient alternative to phaseâ€cycled bSSFP. Magnetic Resonance in Medicine, 2019, 81, 1566-1579.	3.0	6
54	Real-time MRI for dynamic assessment of gastroesophageal reflux disease: Comparison to pH-metry and impedance. European Journal of Radiology, 2020, 125, 108856.	2.6	6

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55	Assessment of esophageal motility disorders by real-time MRI. European Journal of Radiology, 2020, 132, 109265.	2.6	5
56	Spatially encoded phaseâ€contrast MRIâ€”3D MRI movies of 1D and 2D structures at millisecond resolution. Magnetic Resonance in Medicine, 2011, 66, 950-956.	3.0	4
57	Fast Interleaved Multislice T1 Mapping: Model-Based Reconstruction of Single-Shot Inversion-Recovery Radial FLASH. Computational and Mathematical Methods in Medicine, 2018, 2018, 1-8.	1.3	4
58	Fast Real-Time Cardiac MRI: a Review of Current Techniques and Future Directions. Investigative Magnetic Resonance Imaging, 2021, 25, 252.	0.4	4
59	Autocalibrating and calibrationless parallel magnetic resonance imaging as a bilinear inverse problem. , 2017, , .		1
60	Assessment of esophagogastric junction morphology by dynamic real-time MRI: comparison of imaging features to high-resolution manometry. Japanese Journal of Radiology, 2022, 40, 376-384.	2.4	1
61	Echtzeit-MRT: die Zweite. Akademie Der Wissenschaften Zu Goettingen Jahrbuch, 2011, 2010, 263-270.	0.0	0
62	Realâ€time radial tagging for quantification of left ventricular torsion. Magnetic Resonance in Medicine, 2022, , .	3.0	0