Kai Tobias Block

List of Publications by Year
in descending order

36 papers	3,049 citations	430754 18 h-index	360920 35 g-index
37 all docs	37 docs citations	37 times ranked	3206 citing authors

#	Article	IF	Citations
1	Undersampled radial MRI with multiple coils. Iterative image reconstruction using a total variation constraint. Magnetic Resonance in Medicine, 2007, 57, 1086-1098.	1.9	645
2	Goldenâ€angle radial sparse parallel MRI: Combination of compressed sensing, parallel imaging, and goldenâ€angle radial sampling for fast and flexible dynamic volumetric MRI. Magnetic Resonance in Medicine, 2014, 72, 707-717.	1.9	527
3	XDâ€GRASP: Goldenâ€angle radial MRI with reconstruction of extra motionâ€state dimensions using compressed sensing. Magnetic Resonance in Medicine, 2016, 75, 775-788.	1.9	452
4	Compressed sensing for body MRI. Journal of Magnetic Resonance Imaging, 2017, 45, 966-987.	1.9	206
5	Rapid and accurate T₂ mapping from multiâ€“spinâ€echo data using Blochâ€simulationâ€based reconstruction. Magnetic Resonance in Medicine, 2015, 73, 809-817.	1.9	167
6	Towards Routine Clinical Use of Radial Stack-of-Stars 3D Gradient-Echo Sequences for Reducing Motion Sensitivity. Journal of the Korean Society of Magnetic Resonance in Medicine, 2014, 18, 87.	0.1	133
7	Model-Based Iterative Reconstruction for Radial Fast Spin-Echo MRI. IEEE Transactions on Medical Imaging, 2009, 28, 1759-1769.	5.4	131
8	Magnetic resonance imaging in real time: Advances using radial FLASH. Journal of Magnetic Resonance Imaging, 2010, 31, 101-109.	1.9	115
9	Self-gated MRI motion modeling for respiratory motion compensation in integrated PET/MRI. Medical Image Analysis, 2015, 19, 110-120.	7.0	103
10	Respiratory Motion-Resolved Compressed Sensing Reconstruction of Free-Breathing Radial Acquisition for Dynamic Liver Magnetic Resonance Imaging. Investigative Radiology, 2015, 50, 749-756.	3.5	93
11	Free-breathing volumetric fat/water separation by combining radial sampling, compressed sensing, and parallel imaging. Magnetic Resonance in Medicine, 2017, 78, 565-576.	1.9	57
12	Magnetization transfer in magnetic resonance fingerprinting. Magnetic Resonance in Medicine, 2020, 84, 128-141.	1.9	52
13	Accelerated and motionâ€robust in vivo T 2 mapping from radially undersampled data using blochâ€simulationâ€based iterative reconstruction. Magnetic Resonance in Medicine, 2016, 75, 1346-1354.	1.9	44
14	Evaluation of Transient Motion During Gadoxetic Acidâ€“Enhanced Multiphasic Liver Magnetic Resonance Imaging Using Free-Breathing Golden-Angle Radial Sparse Parallel Magnetic Resonance Imaging. Investigative Radiology, 2018, 53, 52-61.	3.5	41
15	Influence of temporal regularization and radial undersampling factor on compressed sensing reconstruction in dynamic contrast enhanced MRI of the breast. Journal of Magnetic Resonance Imaging, 2016, 43, 261-269.	1.9	32
16	Dosimetric evaluation of synthetic CT for magnetic resonance-only based radiotherapy planning of lung cancer. Radiation Oncology, 2017, 12, 108.	1.2	32
17	Optimization of MRI Turnaround Times Through the Use of Dockable Tables and Innovative Architectural Design Strategies. American Journal of Roentgenology, 2019, 212, 855-858.	1.0	26
18	Magnetizationâ€prepared GRASP MRI for rapid 3D T1 mapping and fat/waterâ€separated T1 mapping. Magnetic Resonance in Medicine, 2021, 86, 97-114.	1.9	26

#	Article	IF	Citations
19	Performance of simultaneous high temporal resolution quantitative perfusion imaging of bladder tumors and conventional multi-phase urography using a novel free-breathing continuously acquired radial compressed-sensing MRI sequence. Magnetic Resonance Imaging, 2016, 34, 694-698.	1.0	18
20	Freeâ€breathing fat and R₂* quantification in the liver using a stackâ€ofâ€stars multiâ€echo acquisition with respiratoryâ€resolved modelâ€based reconstruction. Magnetic Resonance in Medicine, 2020, 84, 2592-2605.	1.9	17
21	Role of High-Resolution Dynamic Contrast-Enhanced MRI with Golden-Angle Radial Sparse Parallel Reconstruction to Identify the Normal Pituitary Gland in Patients with Macroadenomas. American Journal of Neuroradiology, 2017, 38, 1117-1121.	1.2	16
22	Diagnostic abdominal MR imaging on a prototype low-field 0.55ÂT scanner operating at two different gradient strengths. Abdominal Radiology, 2021, 46, 5772-5780.	1.0	15
23	Hybrid T₂â€and T₁â€weighted radial acquisition for freeâ€breathing abdominal examination. Magnetic Resonance in Medicine, 2018, 80, 1935-1948.	1.9	14
24	Dynamic Contrast-Enhanced MRI to Differentiate Parotid Neoplasms Using Golden-Angle Radial Sparse Parallel Imaging. American Journal of Neuroradiology, 2019, 40, 1029-1036.	1.2	14
25	Highly accelerated, realâ€time phaseâ€contrast MRI using radial kâ€space sampling and GROGâ€GRASP reconstruction: a feasibility study in pediatric patients with congenital heart disease. NMR in Biomedicine, 2020, 33, e4240.	1.6	13
26	Comprehensive Dynamic Contrast-Enhanced 3D Magnetic Resonance Imaging of the Breast With Fat/Water Separation and High Spatiotemporal Resolution Using Radial Sampling, Compressed Sensing, and Parallel Imaging. Investigative Radiology, 2017, 52, 583-589.	3.5	12
27	Freeâ€breathing radial imaging using a pilotâ€tone radiofrequency transmitter for detection of respiratory motion. Magnetic Resonance in Medicine, 2021, 85, 2672-2685.	1.9	11
28	Adaptive bulk motion exclusion for improved robustness of abdominal magnetic resonance imaging. NMR in Biomedicine, 2017, 30, e3830.	1.6	9
29	Post-contrast T1-weighted spine 3T MRI in children using a golden-angle radial acquisition. Neuroradiology, 2019, 61, 341-349.	1.1	7
30	Improved Detection of Small Pulmonary Nodules Through Simultaneous MR/PET Imaging. Magnetic Resonance Imaging Clinics of North America, 2017, 25, 273-279.	0.6	5
31	Assessing the qualitative and quantitative impacts of simple two-class vs multiple tissue-class MR-based attenuation correction for cardiac PET/MR. Journal of Nuclear Cardiology, 2021, 28, 2194-2204.	1.4	5
32	Improved Detection of Small Pulmonary Nodules Through Simultaneous MR/PET Imaging. PET Clinics, 2018, 13, 89-95.	1.5	4
33	3D T1-weighted contrast-enhanced brain MRI in children using a fat-suppressed golden angle radial acquisition: an alternative to Cartesian inversion-recovery imaging. Clinical Imaging, 2019, 55, 112-118.	0.8	3
34	Subtle pitfalls in the search for faster medical imaging. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2203040119.	3.3	2
35	The discrete Fourier transform for golden angle linogram sampling. Inverse Problems, 2019, 35, 125004.	1.0	1
36	Comparison of image quality of subtracted and nonsubtracted breath hold VIBE and free breathing GRASP in the evaluation of renal masses. Clinical Imaging, 2021, 74, 15-18.	0.8	1