

The highlighted papers are those papers recognized by the reviewers as supporting MRM's goal of Reproducible Research.

CONTENTS

■ ANNOUNCEMENT

Young Investigator Awards Winners.....2214
Published online 04 September 2023

■ SPECTROSCOPIC METHODOLOGY

Research Article

Echo time optimization for in-vivo measurement of unsaturated lipid resonances using J-difference-edited MRS, Dingyi Lin, Jiaqiang Zhou, Yang Cao, Ziyang Wang, Yi-Cheng Hsu, Fenping Zheng, Hong Li, Shuiya Sun, Hong Ren, Liping Deng, Feng Chen, and Min Wang.....2217
Published online 26 July 2023

■ IMAGING METHODOLOGY

Rapid Communication

Investigating cerebral perfusion with high resolution hyperpolarized [1-¹³C]pyruvate MRI, Jasmine Y. Hu, Sana Vaziri, Nikolaj Bøgh, Yaewon Kim, Adam W. Autry, Robert A. Bok, Yan Li, Christoffer Laustsen, Duan Xu, Peder E. Z. Larson, Susan Chang, Daniel B. Vigneron, and Jeremy W. Gordon.....2233
Published online 04 September 2023

Research Articles

A correction algorithm for improved magnetic field monitoring with distal field probes, Paul I. Dubovan, Kyle M. Gilbert, and Corey A. Baron.....2242
Published online 20 August 2023

Volumetric T₂-weighted spin echo imaging with improved SNR using localized quadratic encoding and a spiral readout trajectory, Dahan Kim, Dinghui Wang, Tzu-cheng Chao, Norbert Campeau, and James G. Pipe.....2261
Published online 28 August 2023

Messing up to clean up: Semi-randomized frequency selective space-filling curves to suppress physiological signal fluctuations in MRI, Amir Seginer, and Rita Schmidt.....2275
Published online 13 July 2023

Thin slab quantitative susceptibility mapping,

Nashwan Naji and Alan Wilman2290
Published online 01 August 2023

Real-time fetal brain tracking for functional fetal MRI,

Sara Neves Silva, Jordina Aviles Verdera, Raphael Tomi-Tricot, Radhouene Neji, Alena Uus, Irina Grigorescu, Thomas Wilkinson, Valery Ozenne, Alexander Lewin, Lisa Story, Enrico De Vita, Mary Rutherford, Kuberan Pushparajah, Jo Hajnal, and Jana Hutter.....2306
Published online 19 July 2023

Individually tailored spatial-spectral pulsed CEST MRI for ratiometric mapping of myocardial energetic species at 3T,

Cindy Ayala, Huiwen Luo, Kevin Godines, Wissam Alghuraibawi, Sinyeob Ahn, Wolfgang Rehwald, William A. Grissom, and Moriel H. Vandsburger.....2321
Published online 01 August 2023

Simultaneous quantification of hyperpolarized xenon-129 ventilation and gas exchange with multi-breath xenon-polarization transfer contrast (XTC) MRI,

Faraz Amzajerian, Hooman Hamedani, Ryan Baron, Luis Loza, Ian Duncan, Kai Ruppert, Stephen Kadlecsek, and Rahim Rizi2334
Published online 03 August 2023

SPARCQ: A new approach for fat fraction mapping using asymmetries in the phase-cycled balanced SSFP signal profile,

Giulia M. C. Rossi, Adèle L. C. Mackowiak, Berk Can Açıkgöz, Katarzyna Pierzchała, Tobias Kober, Tom Hilbert, and Jessica A. M. Bastiaansen2348
Published online 26 July 2023

Physics-informed deep learning for T2-deblurred superresolution turbo spin echo MRI,

Zihao Chen, Margaret Caroline Stapleton, Yibin Xie, Debiao Li, Yijun L. Wu, and Anthony G. Christodoulou.....2362
Published online 14 August 2023

CONTENTS

Three-dimensional echo-shifted EPI with simultaneous blip-up and blip-down acquisitions for correcting geometric distortion,

Kaibao Sun, Zhifeng Chen, Guangyu Dan, Qingfei Luo, Lirong Yan, Feng Liu, and Xiaohong Joe Zhou2375

Published online 04 September 2023

Technical Notes

Simultaneous T_2 -weighted real-time MRI of two orthogonal slices,

Samantha Hickey, Andreas Reichert, Wolfgang Ptacek, Lars Bielak, Simon Reiss, Johannes Fischer, Deepa Darshini Gunashekar, Thomas Bortfeld, and Michael Bock.....2388

Published online 10 July 2023

3D CEST MRI with an unevenly segmented RF irradiation scheme: A feasibility study in brain tumor imaging,

Hahnsung Kim, Suhung Park, Ranliang Hu, Kimberly B. Hoang, and Phillip Zhe Sun2400

Published online 01 August 2023

Quantification of T_1 and T_2 of subarachnoid CSF: Implications for water exchange between CSF and brain tissues,

Dengrong Jiang, Yifan Gou, Zhiliang Wei, Xirui Hou, Vivek Yedavalli, and Hanzhang Lu.....2411

Published online 15 August 2023

■ PRECLINICAL AND CLINICAL IMAGING

Rapid Communication

Initial feasibility and challenges of hyperpolarized ^{129}Xe MRI in neonates with bronchopulmonary dysplasia,

Neil J. Stewart, Nara S. Higano, Shanmukha Mukthapuram, Matthew M. Willmering, Wolfgang Loew, Michael West, Anita Arnsperger, Ronald Pratt, Madhwesha R. Rao, Rolf F. Schulte, Jim M. Wild, and Jason C. Woods2420

Published online 01 August 2023

Research Articles

Longitudinal assessment of mitochondrial dysfunction in acute traumatic brain injury using hyperpolarized $[1-^{13}\text{C}]$ pyruvate,

Edward P. Hackett, Jun Chen, Laura Ingle, Sarah Al Nemri, Surendra Barshikar, Marco da Cunha Pinho, Erik J. Plautz, Brenda L. Bartnik-Olson, and Jae Mo Park2432

Published online 10 July 2023

Dynamic cell tracking using time-lapse MRI with variable temporal resolution Cartesian sampling,

Mark Armstrong, Enrica Wilken, Felix Freppon, Max Masthoff, Cornelius Faber, and Dan Xiao2443

Published online 19 July 2023

Motion-resolved four-dimensional abdominal diffusion-weighted imaging using PROPELLER EPI (4D-DW-PROPELLER-EPI),

Lu Wang, Tian Li, Jing Cai, and Hing-Chiu Chang.....2454

Published online 24 July 2023

Factors affecting performance of fetal blood T_2 measurements for noninvasive estimation of oxygen saturation,

Erik Hedström, Marjolein Piek, Sebastian Bidhult-Johansson, Daniel Ryd, Frederik Testud, Johannes Töger, and Anthony H. Aletras2472

Published online 15 August 2023

Spatial and Spectral Components of the BOLD Global Signal in Rat Resting-State Functional MRI,

Nmachi Anumba, Eric Maltbie, Wen-Ju Pan, Theodore J. LaGrow, Nan Xu, and Shella Keilholz2486

Published online 15 August 2023

Technical Note

Rapid T_2 -weighted MRI using multishot EPI with retrospective motion and phase correction in the emergency department,

Zhiqiang Li, Melvyn B. Ooi, James A. Murchison, and John P. Karis.....2500

Published online 05 September 2023

■ BIOPHYSICS AND BASIC BIOMEDICAL RESEARCH

Research Article

Modifying the trajectory of epicardial leads can substantially reduce MRI-induced RF heating in pediatric patients with a cardiac implantable electronic device at 1.5T,

Fuchang Jiang, Bhumi Bhusal, Bach Nguyen, Michael Monge, Gregory Webster, Daniel Kim, Giorgio Bonmassar, Andrada R. Popsecu, and Laleh Golestanirad2510

Published online 01 August 2023

■ COMPUTER PROCESSING AND MODELING

Research Articles

Deep learning-based local SAR prediction using B_1 maps and structural MRI of the head for parallel transmission at 7 T,

Sayim Gokyar, Chenyang Zhao, Samantha J. Ma, and Danny J. J. Wang2524

Published online 19 July 2023

A user independent denoising method for x-nuclei MRI and MRS,

Nichlas Vous Christensen, Michael Vaeggemose, Nikolaj Bøgh, Esben S. S. Hansen, Jonas L. Olesen, Yaewon Kim, Daniel B. Vigneron, Jeremy W. Gordon, Sune N. Jespersen, and Christoffer Laustsen.....2539

Published online 01 August 2023

CONTENTS

Denoising and uncertainty estimation in parameter mapping with approximate Bayesian deep image priors, Max Hellström, Tommy Löfstedt, and Anders Garpebring2557
Published online 15 August 2023

Stochastic-offset-enhanced restricted slice excitation and 180° refocusing designs with spatially non-linear ΔB_0 shim array fields, Molin Zhang, Nicolas Arango, Yamin Arefeen, Georgy Guryev, Jason P. Stockmann, Jacob White, and Elfar Adalsteinsson.....2572
Published online 05 September 2023

■ HARDWARE AND INSTRUMENTATION

Research Articles

A 128-channel receive array for cortical brain imaging at 7 T, Bernhard Gruber, Jason P. Stockmann, Azma Mareyam, Boris Keil, Berkin Bilgic, Yulin Chang, Ehsan Kazemivalipour, Alexander J. S. Beckett, An T. Vu, David A. Feinberg, and Lawrence L. Wald2592
Published online 15 August 2023

Wirelessly interfacing sensor-equipped implants and MR scanners for improved safety and imaging, Berk Silemek, Frank Seifert, Johannes Petzold, Rüdiger Brühl, Bernd Ittermann, and Lukas Winter2608
Published online 02 August 2023

Implant-friendly MRI of deep brain stimulation electrodes at 7 T, Alireza Sadeghi-Tarakameh, Lance DelaBarre, Nur Izzati Huda Zulkarnain, Noam Harel, and Yigitcan Eryaman2627
Published online 02 August 2023

Technical Note

A temperature-controlled cooling system for accurate quantitative post-mortem MRI, Sebastian W. Rieger, Aaron Hess, Yang Ji, Christopher T. Rodgers, Peter Jezzard, Karla L. Miller, and Wenchuan Wu2643
Published online 02 August 2023