

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

CONTENTS

■ LETTER TO THE EDITOR

"The MRI education course" – A free resource for the community to provide MRI education, across the Europe and Iran, established during the COVID-19 pandemic, Laura Bortolotti, Elisabeth S. Pickles, Aine T. Dineen, Priyanka Sakhavalkar, Patrick S. Fuchs, Clementine Lesbats, Po-Wah So, and James T. Grist.....497
Published online 26 October 2022

■ SPECTROSCOPIC METHODOLOGY

Technical Note

The future is 2D: spectral-temporal fitting of dynamic MRS data provides exponential gains in precision over conventional approaches, Assaf Tal499
Published online 19 September 2022

■ IMAGING METHODOLOGY

Research Articles

Ultra-short T_2 components imaging of the whole brain using 3D dual-echo UTE MRI with rosette k-space pattern, Xin Shen, Ali Caglar Özen, Antonia Sunjar, Serhat Ilbey, Stephen Sawiak, Riyi Shi, Mark Chiew, and Uzay Emir508
Published online 25 September 2022

Time-dependent diffusivity and kurtosis in phantoms and patients with head and neck cancer, Eddy Solomon, Gregory Lemberskiy, Steven Baete, Kenneth Hu, Dariya Malyarenko, Scott Swanson, Amita Shukla-Dave, Stephen E. Russek, Elcin Zan, and Sungeon Gene Kim522
Published online 11 October 2022

Self-calibrated through-time spiral GRAPPA for real-time, free-breathing evaluation of left ventricular function, Dominique Franson, James Ahad, Yuchi Liu, Alexander Fyrdahl, William Truesdell, Jesse Hamilton, and Nicole Seiberlich.....536
Published online 05 October 2022

Fast-spin-echo versus rapid gradient-echo for 3D magnetization-prepared acquisitions: Application to inhomogeneous magnetization transfer, Manuel Taso, Fanny Munsch, Olivier M. Girard, Guillaume Duhamel, David C. Alsop, and Gopal Varma.....550
Published online 28 October 2022

Average saturation efficiency filter ASEF-CEST MRI of stroke rodents, Julius Juhyun Chung, and Tao Jin.....565
Published online 27 October 2022

A method for measuring B_0 field inhomogeneity using quantitative double-echo in steady-state, Marco Barbieri, Akshay S. Chaudhari, Catherine J. Moran, Garry E. Gold, Brian A. Hargreaves, and Feliks Kogan.....577
Published online 25 September 2022

Fetal 3D cardiovascular cine image acquisition using radial sampling and compressed sensing, Marjolein Piek, Daniel Ryd, Johannes Töger, Frederik Testud, Erik Hedström, and Anthony H. Aletras.....594
Published online 25 September 2022

High-resolution multi-shot diffusion-weighted MRI combining markerless prospective motion correction and locally low-rank constrained reconstruction, Hao Chen, Ke Dai, Sijie Zhong, Jiaxu Zheng, Xinyue Zhang, Shasha Yang, Tuoyu Cao, Chaohong Wang, Ekin Karasan, Lucio Frydman, and Zhiyong Zhang605
Published online 05 October 2022

Reassembled saturation transfer (REST) MR images at 2 B_1 values for in vivo exchange-dependent imaging of amide and nuclear Overhauser enhancement, Yanrong Chen, Xujian Dang, Wanting Hu, Yaozong Sun, Yan Bai, Xiaoli Wang, Xiaowei He, Meiyun Wang, and Xiaolei Song620
Published online 17 October 2022

CONTENTS

NOE-weighted imaging in tumors using low-duty-cycle 2 π -CEST, Jing Cui, Casey Sun, and Zhongliang Zu 636
Published online 05 October 2022

Enhancing linguistic research through 2-mm isotropic 3D dynamic speech MRI optimized by sparse temporal sampling and low-rank reconstruction, Riwei Jin, Ryan K. Shosted, Fangxu Xing, Imani R. Gilbert, Jamie L. Perry, Jonghye Woo, Zhi-Pei Liang, and Bradley P. Sutton 652
Published online 26 October 2022

Mapping the myelin bilayer with short-T₂ MRI: Methods validation and reference data for healthy human brain, Emily Louise Baadsvik, Markus Weiger, Romain Froidevaux, Wolfgang Faigle, Benjamin Victor Ineichen, and Klaas Paul Pruessmann 665
Published online 17 October 2022

Deep, deep learning with BART, Moritz Blumenthal, Guanxiong Luo, Martin Schilling, H. Christian M. Holme, and Martin Uecker 678
Published online 18 October 2022

High frame rate deformation analysis of knee cartilage by spiral dualMRI and relaxation mapping, Woowon Lee, Emily Y. Miller, Hongtian Zhu, Callan M. Luetkemeyer, Stephanie E. Schneider, and Corey P. Neu 694
Published online 27 October 2022

Technical Notes

Real-time trajectory guide tracking for intraoperative MRI-guided neurosurgery, Miles E. Olsen, Ethan K. Brodsky, Jonathan A. Oler, Marissa K. Riedel, Sascha A. L. Mueller, Scott C. Vermilyea, Jeanette M. Metzger, Yunlong Tao, Kevin G. Brunner, Azam S. Ahmed, Su-Chun Zhang, Marina E. Emborg, Ned H. Kalin, and Walter F. Block 710
Published online 21 September 2022

Model-based determination of the synchronization delay between MRI and trajectory data, Paul Ioan Dubovan, and Corey Allan Baron 721
Published online 26 September 2022

Detection of laser-associated heating in the brain during simultaneous fMRI and optogenetic stimulation, Huiwen Luo, Zhangyan Yang, Pai-Feng Yang, Feng Wang, Jamie L. Reed, John C. Gore, William A. Grissom, and Li Min Chen 729
Published online 25 September 2022

Free-breathing 3D CEST MRI of human liver at 3.0 T, Pei Han, Karandeep Cheema, Tianle Cao, Hsu-Lei Lee, Fei Han, Nan Wang, Hui Han, Yibin Xie, Anthony G. Christodoulou, and Debiao Li 738
Published online 25 September 2022

Contrast-optimal simultaneous multi-slice bSSFP cine cardiac imaging at 0.55 T, Ye Tian, Sophia X. Cui, Yongwan Lim, Nam G. Lee, Ziwei Zhao, and Krishna S. Nayak 746
Published online 05 October 2022

Tuned bipolar oscillating gradients for mapping frequency dispersion of diffusion kurtosis in the human brain, Kevin B. Borsos, Desmond H. Y. Tse, Paul I. Dubovan, and Corey A. Baron 756
Published online 05 October 2022

Fast bound and pore water mapping of cortical bone with arbitrary slice oriented two-dimensional ultra-short echo time, Kevin D. Harkins, Thammathida Ketsiri, Jeffrey S. Nyman, and Mark D. Does 767
Published online 13 October 2022

PRECLINICAL AND CLINICAL IMAGING

Research Article

Noninvasively differentiating acute and chronic nephropathies via multiparametric urea-CEST, nuclear Overhauser enhancement-CEST, and quantitative magnetization transfer MRI, Soo Hyun Shin, Michael F. Wendland, Jingshen Wang, Mark Velasquez, and Moriel H. Vandsburger 774
Published online 13 October 2022

COMPUTER PROCESSING AND MODELING

Research Articles

Axissymmetric diffusion kurtosis imaging with Rician bias correction: A simulation study, Jan Malte Oeschger, Karsten Tabelow, and Siawoosh Mohammadi 787
Published online 05 October 2022

Accelerated 4D-flow MRI with 3-point encoding enabled by machine learning, Dahan Kim, Mu-Lan Jen, Laura B. Eisenmenger, and Kevin M. Johnson 800
Published online 05 October 2022

Iterative training of robust k-space interpolation networks for improved image reconstruction with limited scan specific training samples, Peter Dawood, Felix Breuer, Jannik Stebani, Paul Burd, István Homolya, Johannes Oberberger, Peter M. Jakob, and Martin Blaimer 812
Published online 13 October 2022

CONTENTS

An improved asymmetric susceptibility tensor imaging model with frequency offset correction, Ruimin Feng, Steven Cao, Jie Zhuang, Jiayi Zhao, Xiaojun Guan, Yuyao Zhang, Chunlei Liu, and Hongjiang Wei 828
Published online 27 October 2022

Trade-off between preamplifier noise figure and decoupling in MRI detectors, Wenjun Wang, Vitaliy Zhurbenko, Juan Diego Sánchez-Heredia, and Jan Henrik Ardenkjær-Larsen..... 859
Published online 20 October 2022

■ HARDWARE AND INSTRUMENTATION

Research Articles

An interventional MRI guidewire combining profile and tip conspicuity for catheterization at 0.55T, Dursun Korel Yildirim, Dogangun Uzun, Christopher G. Bruce, Jaffar M. Khan, Toby Rogers, William H. Schenke, Rajiv Ramasawmy, Adrienne Campbell-Washburn, Daniel A. Herzka, Robert J. Lederman, and Ozgur Kocaturk 845
Published online 05 October 2022