MAGNETIC RESONANCE IN MEDICINE

CONTENTS

■ LETTER TO THE EDITOR Sphere of Lorentz and Demagnetization Factors in White Matter, Jeff H. Duyn and Thomas M. Barbara	A Dialyzer-Based Flow System for Validating Dynamic Contrast Enhanced MR Image Acquisition, Sunder Rajan, Luke Herbertson, Marcelino Bernardo, and Peter Choyke
■ RESPONSE Lorentz Sphere Versus Generalized Lorentzian Approach: What Would Lorentz Say About It? Dmitriy A. Yablonskiy, Xiang He, Jie Luo, and Alexander L. Sukstanskii	MRI by Steering Resonance Through Space, Angela L. S. Snyder, Curtis A. Corum, Steen Moeller, Nathaniel J. Powell, and Michael Garwood
■ SPECTROSCOPIC METHODOLOGY	Matthew C. Murphy, Krzysztof Gorny, and Richard Ehman
Full Paper Chemical Shift-Based MRI to Measure Fat Fractions in Dystrophic Skeletal Muscle, William T. Triplett, Celine Baligand, Sean C. Forbes, Rebecca J. Willcocks, Donovan J. Lott, Soren DeVos, Jim Pollaro, William D. Rooney, H. Lee Sweeney, Carsten G. Bönnemann, Dah-Jyuu Wang,	Nonrigid Motion Correction for Dynamic Three- Dimensional Cardiac Perfusion Imaging, Johannes F. M. Schmidt, Lukas Wissmann, Robert Manka, and Sebastian Kozerke
Krista Vandenborne, and Glenn A. Walter	A Method for Unwrapping Highly Wrapped Multi-Echo Phase Images at Very High Field: UMPIRE, Simon Robinson, Horst Schödl, and Siegfried Trattnig
Spectroscopy at High Magnetic Field: A Simulation Study, Dinesh Kumar Deelchand, Isabelle Iltis, and Pierre-Gilles Henry	Interslice Leakage Artifact Reduction Technique for Simultaneous Multislice Acquisitions, Stephen F. Cauley, Jonathan R. Polimeni, Himanshu Bhat, Lawrence L. Wald, and Kawin Setsompop
Peaks, Meijin Lin, Anand Kumar, and Shaolin Yang	MR Parameter Quantification with Magnetization-Prepared Double Echo Steady-State (MP-DESS), Tony Stöcker, Fabian Keil, Kaveh Vahedipour, Daniel Brenner, Eberhard Pracht, and N. Jon Shah
Full Papers Influence of Eddy Current, Maxwell and Gradient Field Corrections on 3D Flow Visualization of 3D CINE PC-MRI Data, Ramona Lorenz, Jelena Bock, Jeff Snyder, Jan G. Korvink, Bernd A. Jung, and Michael Markl	Published online 2 August 2013 Local Shape Adaptation for Curved Slice Selection, Hans Weber, Martin Haas, Denis Kokorin, Daniel Gallichan, Jürgen Hennig, and Maxim Zaitsev

CONTENTS

Towards Elimination of the Dark-Rim Artifact in First-Pass Myocardial Perfusion MRI: Removing Gibbs Ringing Effects Using Optimized Radial Imaging, Behzad Sharif, Rohan Dharmakumar, Troy LaBounty, Reza Arsanjani, Chrisandra Shufelt, Louise Thomson, C. Noel Bairey Merz, Daniel S. Berman, and Debiao Li	■ BIOPHYSICS AND BASIC BIOMEDICAL RESEARCH Full Papers Beat-to-Beat Variation in Pulse Wave Velocity During Breathing Maneuvers, Nicholas R. Gaddum, Tobias Schaeffter, Martin Bührer, Marcel Rutten, Lorna Smith, Philip J. Chowienczyk, and Philipp B. J. Beerbaum
Slab-Selective, BOLD-Corrected VASO at 7 Tesla Provides Measures of Cerebral Blood Volume Reactivity with High Signal-to-Noise Ratio, Laurentius Huber, Dimo Ivanov, Steffen N. Krieger, Markus N. Streicher, Toralf Mildner, Benedikt A. Poser, Harald E. Möller, and Robert Turner	The Shear Modulus of the Nucleus Pulposus Measured Using Magnetic Resonance Elastography: A Potential Biomarker for Intervertebral Disc Degeneration, Daniel H. Cortes, Jeremy F. Magland, Alexander C. Wright, and Dawn M. Elliott
Quantitative Oxygenation Venography from MRI Phase, Audrey P. Fan, Berkin Bilgic, Louis Gagnon, Thomas Witzel, Himanshu Bhat, Bruce R. Rosen, and Elfar Adalsteinsson	Note 7 Tesla MRI with a Transmit/Receive Loopless Antenna and B ₁ -Insensitive Selective Excitation, M. Arcan Erturk, AbdEl-Monem M. El-Sharkawy, Jay Moore, and Paul A. Bottomley
Notes Intraoral Approach for Imaging Teeth Using the Transverse B ₁ Field Components of an Occlusally Oriented Loop Coil, Djaudat Idiyatullin, Curtis A. Corum, Donald R. Nixdorf, and Michael Garwood	■ COMPUTER PROCESSING AND MODELING Full Papers Quantitative Analysis of the Efficacy of Gradient Table Correction on Improving the Accuracy of Fiber Tractography, Ali Ersoz, Volkan Emre Arpinar, Sean Dreyer, and L. Tugan Muftuler
Parallel MRI, Martin Blaimer, Peter M. Jakob, and Felix A. Breuer	Bloch-Based MRI System Simulator Considering Realistic Electromagnetic Fields for Calculation of Signal, Noise, and Specific Absorption Rate, Zhipeng Cao, Sukhoon Oh, Christopher T. Sica, John M. McGarrity, Timothy Horan, Wei Luo, and Christopher M. Collins
Yuji Iwadate, Anja C. S. Brau, Shreyas S. Vasanawala, and Hiroyuki Kabasawa	Published online 4 September 2013 Transmit and Receive RF Fields Determination from a Single Low-Tip-Angle Gradient-Echo Scan by Scaling of SVD Data, Alessandro Sbrizzi, Alexander J. E. Raaijmakers, Hans Hoogduin, Jan J. W. Lagendijk, Peter R. Luijten,
IMAGING Full Papers Toward Real-Time Temperature Monitoring in Fat and Aqueous Tissue During Magnetic Resonance–Guided High-Intensity Focused Ultrasound Using a Three-Dimensional Proton Resonance Frequency T ₁ Method, Mahamadou Diakite, Henrik Odéen, Nick Todd, Allison Payne, and Dennis L. Parker 178 Published online 30 July 2013	and Cornelis A. T. van den Berg
Numerical Simulations of Carotid MRI Quantify the Accuracy in Measuring Atherosclerotic Plaque Components In Vivo, Harm A. Nieuwstadt, Tom R. Geraedts, Martine T. B. Truijman, M. Eline Kooi, Aad van der Lugt, Anton F. W. van der Steen, Jolanda J. Wentzel, Marcel Breeuwer, and Frank J. H. Gijsen	■ HARDWARE AND INSTRUMENTATION Full Papers A Controllable Susceptibility Marker for Passive Device Tracking, William Dominguez-Viqueira, Hirad Karimi, Wilfred W. Lam, and Charles H. Cunningham

CONTENTS

Modular 32-Channel Transceiver Coil Array for	
Cardiac MRI at 7.0T, Andreas Graessl,	
Wolfgang Renz, Fabian Hezel, Matthias A. Dieringer,	
Lukas Winter, Celal Oezerdem, Jan Rieger,	
Peter Kellman, Davide Santoro, Tomasz D. Lindel,	
Tobias Frauenrath, Harald Pfeiffer,	
and Thoralf Niendorf276	
Published online 31 July 2013	

AUTHOR GUIDELINES

For additional tools visit Author Resources - an enhanced suite of online tools for Wiley Online Library journal authors, featuring Article Tracking, E-mail Publication Alerts and Customized Research Tools.

Note to NIH Grantees

Pursuant to NIH mandate, Wiley will post the accepted version of contributions authored by NIH grant-holders to PubMed Central upon acceptance. This accepted version will be made publicly available 12 months after publication. For further information, see www.wiley.com/go/nihmandate.

Overview

Magnetic Resonance in Medicine (Magn Reson Med) is an international journal devoted to the publication of original investigations concerned with all aspects of the development and use of nuclear magnetic resonance and electron paramagnetic resonance techniques for medical applications. Reports of original investigations in the areas of mathematics, computing, engineering, physics, biophysics, chemistry, biochemistry, and physiology directly relevant to magnetic resonance will be accepted, as well as methodology-oriented clinical studies.

General correspondence concerning Magn Reson Med may be directed to: Matt A. Bernstein, Ph.D., Editor-in-Chief, *Magnetic Resonance in Medicine*, Mayo Clinic, 200 First Street SW, Rochester, Minnesota 55905; telephone: 1 (717) 689-3694; fax: 1 (717) 689-3697; email: mrm@ismrm.org.

Copyright Assignment, and Criteria for Authorship and Submission

The main criteria for acceptance of papers submitted for publication are the significance, originality, clarity, and quality of the work reported. Manuscripts are accepted for review with the understanding that the same work has not been published, it is not under consideration for publication elsewhere, and its submission for publication has been approved by all persons listed as authors. In particular, Magn Reson Med requires that all authors and coauthors satisfy the authorship criteria described by the International Committee of Medical Journal Editors (ICMJE), which state:

"Authorship credit should be based on:

- substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data
- drafting the article or revising it critically for important intellectual content; and
- 3) final approval of the version to be published.

Authors should meet conditions 1, 2, and 3."

Magn Reson Med expects individuals who participated in 1) to be offered the opportunity to participate in activities 2) and 3), and receive authorship credit. The journal also expects all individuals who participate in activities 1), 2) and 3) to receive authorship credit. Individuals who have contributed substantially to the manuscript but do not satisfy all three criteria should be listed in the Acknowledgments section.

Magn Reson Med requires that the submission for publication is approved by the appropriate authority at the institution where the work was carried out. It is further understood that any person cited as a source of personal communication has approved such citation. Written authorization may be required at the Editor's discretion. Articles and any other material published in Magn Reson Med represent the opinions of the author(s) and should not be construed to reflect the opinion of the Editor(s), the Interna-

tional Society for Magnetic Resonance in Medicine (ISMRM), or the Publisher. Magn Reson Med uses a single-blind review process where manuscripts are peer reviewed by two or more Referees. Please note that all editorial decisions are final.

Authors submitting a manuscript do so with the understanding that if it is accepted for publication, copyright in the article, including the right to reproduce the article in all forms and media, shall be assigned exclusively to the ISMRM. The ISMRM will not refuse any reasonable request by the author for permission to reproduce any of his or her contributions to Magn Reson Med.

Magn Reson Med requires authors to submit a completed copyright transfer agreement (CTA) to the journal upon submission. The CTA includes the authorship criteria described earlier in this section. All authors and co-authors must sign a form. Signature on behalf of other authors is not permitted. Note that there is a dedicated page on the form for U.S. Government employees to sign. The preferred file type for the completed, scanned form(s) is PDF. Please find the link to access the form in our online Author Guidelines.

Rights and Permissions

Permission to reproduce materials published in Magn Reson Med or other Wiley publications may be obtained through the publisher by completing an online permission request form available at: http://www.wiley.com/WileyCDA/Section/id-301724.html

Posting of Preprints:

Posting a preprint of a manuscript submitted to Magn Reson Med will not have an adverse effect on its editorial decision, provided the preprint is posted on a not-for-profit site (e.g., a university website, arXiv, etc.), and the text "Submitted to Magnetic Resonance in Medicine" is prominently displayed on the title page. After online publication, the typeset version of the paper may not be re-posted, but instead we expect the preprint to be updated to show a link to the final, published version prominently displayed on its title page.

Reproducible Research: Source Codes, Image Sets, Numerical Phantoms, and Raw k-Space Data

Magn Reson Med supports its scientific mission by promoting reproducible research. The journal strongly encourages authors to facilitate the reproducibility of their research by publicly sharing the source code or scripts that are used to generate results presented in their articles.

The sharing of image sets, numerical phantoms and raw k-space sets is also encouraged.

Source Code and Scripts: Authors of articles detailing new or modified software algorithms are encouraged to make a git archive of an implementation of their source code or make it available on the author's webpage.

 $\label{thm:magn} \mbox{Magn Reson Med requests that the authors include in their article:}$

- 1) A link to the webpage where the software can be found, and
- 2) The SHA-1 hash uniquely identifying the specific revision used in the publication.

Magn Reson Med's preferred git archive providers include:

- 1) GitHub: https://github.com/
- 2) BitBucket: www.bitbucket.org/
- 3) SourceForge: sourceforge.net/