

CONTENTS

■ SPECTROSCOPIC METHODOLOGY

Full Papers

Lipid Suppression in CSI with Spatial Priors and Highly Undersampled Peripheral K-Space, Berkin Bilgic, Borjan Gagoski, Trina Kok, and Elfar Adalsteinsson..... 1501
Published online 17 July 2012

Which Prior Knowledge? Quantification of In Vivo Brain ¹³C MR Spectra Following ¹³C Glucose Infusion Using AMARES, Bernard Lanz, João M. N. Duarte, Nicolas Kunz, Vladimir Mlynárik, Rolf Gruetter, and Cristina Cudalbu..... 1512
Published online 8 August 2012

Notes

In Vitro and In Vivo Studies of ¹⁷O NMR Sensitivity at 9.4 and 16.4 T, Ming Lu, Yi Zhang, Kamil Ugurbil, Wei Chen, and Xiao-Hong Zhu..... 1523
Published online 6 July 2012

Reliable Gamma Aminobutyric Acid Measurement Using Optimized PRESS at 3 T, Antonio Napolitano, Walter Kockenberger, and Dorothee P. Auer 1528
Published online 17 July 2012

■ IMAGING METHODOLOGY

Rapid Communication

Design of Multishell Sampling Schemes with Uniform Coverage in Diffusion MRI, Emmanuel Caruyer, Christophe Lenglet, Guillermo Sapiro, and Rachid Deriche..... 1534
Published online 26 April 2013

Full Papers

Quantification of Venous Vessel Size in Human Brain in Response to Hypercapnia and Hyperoxia Using Magnetic Resonance Imaging, Yuji Shen, Ida M. Pu, Trevor Ahearn, Matthew Clemence, and Christian Schwarzbauer 1541
Published online 5 April 2012

Multidirectional High-Moment Encoding in Phase Contrast MRI, Nicholas R. Zwart and James G. Pipe..... 1553
Published online 3 July 2012

Repeatability of Ultrashort Echo Time-Based Two-Component T_2^* Measurements on Cartilages in Human Knee at 3 T, Yongxian Qian, Ashley A. Williams, Constance R. Chu, and Fernando E. Boada 1565
Published online 3 October 2012

Noninvasive Mapping of Water Diffusional Exchange in the Human Brain Using Filter-Exchange Imaging, Markus Nilsson, Jimmy Lätt, Danielle van Westen, Sara Brockstedt, Samo Lasič, Freddy Ståhlberg, and Daniel Topgaard 1573
Published online 26 July 2012

Toward Online Reconstruction of Quantitative Susceptibility Maps: Superfast Dipole Inversion, Ferdinand Schweser, Andreas Deistung, Karsten Sommer, and Jürgen Rainer Reichenbach 1582
Published online 12 July 2012

An Algorithm for the Calculation of Three-Dimensional Collagen Fiber Orientation in Ligaments Using Angle-Sensitive MRI, Thomas Seidel, Niels Hammer, Nikita Garnov, Grace Schneider, and Hanno Steinke 1595
Published online 23 July 2012

A Viable Isolated Tissue System: A Tool for Detailed MR Measurements and Controlled Perturbation in Physiologically Stable Tissue, S. Richardson, B. Siow, A. M. Batchelor, M. F. Lythgoe, and D. C. Alexander 1603
Published online 20 July 2012

Center-Out Radial Sampling with Off-Resonant Reconstruction for Efficient and Accurate Localization of Punctate and Elongated Paramagnetic Structures, H. de Leeuw, P. R. Seevinck, and C. J. G. Bakker 1611
Published online 30 July 2012

Prospective Optical Motion Correction for 3D Time-of-Flight Angiography, Daniel Kopeinigg, Murat Aksoy, Christoph Forman, Matus Straka, Danielle Seaman, Jarrett Rosenberg, Dominik Fleischmann, Joachim Hornegger, and Roland Bammer 1623
Published online 10 August 2012

CONTENTS

Do Dynamic-Based MR Knee Kinematics Methods Produce the Same Results as Static Methods? Agnes G. d'Entremont, Jurek A. Nordmeyer-Massner, Clemens Bos, David R. Wilson, and Klaas P. Pruessmann..... 1634
Published online 27 July 2012

Notes

The Effect of Pulmonary Blood Flow Changes on Oxygen-Enhanced Lung Magnetic Resonance Imaging, Hye-Jeong Lee, Jaeseok Park, Jin Hur, Young Jin Kim, Ji Eun Nam, Byoung Wook Choi, and Kyu Ok Choe..... 1645
Published online 3 July 2012

Accelerated Point Spread Function Mapping Using Signal Modeling for Accurate Echo-Planar Imaging Geometric Distortion Correction, Iulius Dragonu, Thomas Lange, Nicoleta Baxan, Jeff Snyder, Juergen Hennig, and Maxim Zaitsev..... 1650
Published online 17 July 2012

High-Resolution Functional MRI at 3 T: 3D/2D Echo-Planar Imaging with Optimized Physiological Noise Correction, Antoine Lutti, David L. Thomas, Chloe Hutton, and Nikolaus Weiskopf..... 1657
Published online 20 July 2012

SENSE with Improved Tolerance to Inaccuracies in Coil Sensitivity Maps, Johannes M. Peeters and Miha Fuderer..... 1665
Published online 30 July 2012

Simultaneous Multislice Inversion Contrast Imaging Using Power Independent of the Number of Slices (PINS) and Delays Alternating with Nutation for Tailored Excitation (DANTE) Radio Frequency Pulses, Peter J. Koopmans, Rasim Boyacıoğlu, Markus Barth, and David G. Norris..... 1670
Published online 17 July 2012

Per-Subject Characterization of Bolus Width in Pulsed Arterial Spin Labeling Using Bolus Turbo Sampling, M. Villien, E. Chipon, I. Troprès, J. Bouvier, S. Cantin, D. Chechin, J.-F. Le Bas, A. Krainik, and J. M. Warnking..... 1677
Published online 24 July 2012

Accelerated Fluorine-19 MRI Cell Tracking Using Compressed Sensing, Jia Zhong, Parker H. Mills, T. Kevin Hitchens, and Eric T. Ahrens..... 1683
Published online 26 July 2012

Simultaneous Single-Quantum and Triple-Quantum-Filtered MRI of ^{23}Na (SISTINA), Daniel P. Fiege, Sandro Romanzetti, Christian C. Mirkes, Daniel Brenner, and N. Jon Shah..... 1691
Published online 24 July 2012

Skeletal Age Assessment in Children Using an Open Compact MRI System, Yasuhiko Terada, Saki Kono, Daiki Tamada, Tomomi Uchiomi, Katsumi Kose, Ryo Miyagi, Eiko Yamabe, and Hiroshi Yoshioka..... 1697
Published online 31 July 2012

■ PRECLINICAL AND CLINICAL IMAGING

Full Papers

In Vivo MRI Visualization of Different Cell Populations Labeled with PARACEST Agents, Giuseppe Ferrauto, Daniela Delli Castelli, Enzo Terreno, and Silvio Aime..... 1703
Published online 26 July 2012

Progression of Experimental Lesions of Atherosclerosis: Assessment by Kinetic Modeling of Black-Blood Dynamic Contrast-Enhanced MRI, Huijun Chen, Jerry Ricks, Michael Rosenfeld, and William S. Kerwin..... 1712
Published online 24 July 2012

Assessing the Reproducibility of Dynamic Contrast Enhanced Magnetic Resonance Imaging in a Murine Model of Breast Cancer, Stephanie L. Barnes, Jennifer G. Whisenant, Mary E. Loveless, Gregory D. Ayers, and Thomas E. Yankeelov..... 1721
Published online 27 July 2012

Quantitative First-Pass Perfusion MRI of the Mouse Myocardium, Bastiaan J. van Nierop, Bram F. Coolen, Wouter J.R. Dijk, Arjan D. Hendriks, Larry de Graaf, Klaas Nicolay, and Gustav J. Strijkers..... 1735
Published online 20 August 2012

Note

In Vivo MRI of Fresh Stored Osteochondral Allograft Transplantation with Delayed Gadolinium-Enhanced MRI of Cartilage: Protocol Considerations and Recommendations, Michael G. Durkan, Jerzy Szumowski, Dawson S. Brown, Erik W. Foss, and Dennis C. Crawford..... 1745
Published online 24 July 2012

■ BIOPHYSICS AND BASIC BIOMEDICAL RESEARCH

Rapid Communication

Experimentally and Computationally Fast Method for Estimation of a Mean Kurtosis, Brian Hansen, Torben E. Lund, Ryan Sangill, and Sune Norhøj Jespersen..... 1754
Published online 15 April 2013

CONTENTS

Note

- Toward Cardiovascular Interventions Guided by Magnetic Particle Imaging: First Instrument Characterization**, Julian Haegele, Sven Biederer, Hanne Wojtczyk, Matthias Gräser, Tobias Knopp, Thorsten M. Buzug, Jörg Barkhausen, and Florian M. Vogt 1761
Published online 24 July 2012

■ COMPUTER PROCESSING AND MODELING

Full Papers

- Gadgetron: An Open Source Framework for Medical Image Reconstruction**, Michael Schacht Hansen and Thomas Sangild Sørensen 1768
Published online 12 July 2012

- Automated Algorithm for Reconstruction of the Complete Spine from Multistation 7T MR Data**, Oleh Dzyubachyk, Boudewijn P. F. Lelieveldt, Jorik Blaas, Monique Reijnierse, Andrew Webb, and Rob J. van der Geest 1777
Published online 20 July 2012

Note

- Estimating T_1 from Multichannel Variable Flip Angle SPGR Sequences**, Joshua D. Trzasko, Petrice M. Mostardi, Stephen J. Riederer, and Armando Manduca 1787
Published online 17 July 2012

■ HARDWARE AND INSTRUMENTATION

Full Paper

- Hybrid Ultra-Low-Field MRI and Magnetoencephalography System Based on a Commercial Whole-Head Neuromagnetometer**, Panu T. Vesänen, Jaakko O. Nieminen, Koos C. J. Zevenhoven, Juhani Dabek, Lauri T. Parkkonen, Andrey V. Zhdanov, Juho Luomahaara, Juha Hassel, Jari Penttilä, Juha Simola, Antti I. Ahonen, Jyrki P. Mäkelä, and Risto J. Ilmoniemi 1795
Published online 17 July 2012

Note

- Optimum Coupling and Multimode Excitation of Traveling-Waves in a Whole-Body 9.4T Scanner**, Frank H. Geschewski, Daniel Brenner, Jörg Felder, and N. Jon Shah 1805
Published online 10 July 2012

■ ERRATUM

- Erratum: D'Entremont, AG, Nordmeyer-Massner, JA, Bos, C, Wilson, DR, Pruessmann, KP. Do Dynamic-Based MR Knee Kinematics Methods Produce the Same Results as Static Methods? Magnetic Resonance in Medicine 2012;69: 1635–1645.** 1813
Published online 4 April 2013