SPECTROSCOPIC METHODOLOGY

Full Papers

In Vivo $^{31}$P Spectroscopy by Fully Adiabatic Extended Image Selected In Vivo Spectroscopy: A Comparison Between 3 T and 7 T, W. Bogner, M. Chmelik, O. C. Andronesi, A. G. Sorensen, S. Trattnig, and S. Gruber ........................................... 923 Published online 28 March 2011

Note
$^{19}$F-Lanthanide Complexes With Increased Sensitivity for $^{19}$F-MRI: Optimization of the MR Acquisition, Kirsten H. Chalmers, Alan M. Kenwright, David Parker, and Andrew M. Blamire ........................................... 931 Published online 4 March 2011

PRECLINICAL AND CLINICAL SPECTROSCOPY

Communication
Diffusion-Weighted Magnetic Resonance Spectroscopy: A Novel Approach to Investigate Intramyocellular Lipids, Li Xiao and Ed X. Wu ... 937 Published online 23 September 2011

Note
Quantitative Lithium Magnetic Resonance Spectroscopy in the Normal Human Brain on a 3 T Clinical Scanner, Fiona E. Smith, David A. Cousins, Peter E. Thelwall, I. Nicol Ferrier, and Andrew M. Blamire ........................................... 945 Published online 28 March 2011

IMAGING METHODOLOGY

Communication
Spatially Encoded Phase-Contrast MRI—3D MRI Movies of 1D and 2D Structures at Millisecond Resolution, Klaus-Dietmar Merboldt, Martin Uecker, Dirk Voit, and Jens Frahm ................. 950 Published online 12 August 2011

Full Papers
Experimental Performance Evaluation of Multi-Echo ICNE Pulse Sequence in Magnetic Resonance Electrical Impedance Tomography, Atul S. Minhas, Woo Chul Jeong, Young Tae Kim, Yeqing Han, Hyung Joong Kim, and Eung Je Woo .................................................. 957 Published online 25 March 2011

On the Undersampling Strategies to Accelerate Time-Resolved 3D Imaging Using k-t-GRAPPA, Bernd Jung, Aurelien F. Stalder, Simon Bauer, and Michael Markl ............... 966 Published online 24 March 2011

$B_0$ Mapping With Multi-Channel RF Coils at High Field, Simon Robinson and Jorge Jovicich ............... 976 Published online 23 May 2011

Quantitative $T_2$-Mapping Based on Multi-Slice Multiple Gradient Echo FLASH Imaging: Retrospective Correction for Subject Motion Effects, Joerg Magerkurth, Steffen Volz, Marlies Wagner, Alina Jurcoane, Sandra Antl, Alexander Seiler, Elke Hattingen, and Ralf Deichmann ........................................... 989 Published online 4 March 2011

Single Scan PC-MRI by Alternating the Velocity Encoding Gradient Polarity Between Phase Encoding Steps, Bremer Jonathan, Qingwei Liu, Brooke Steele, Carol Lucas, Robert Dennis, and Weili Lin .................................................. 998 Published online 10 March 2011

Highly Efficient Whole-Heart Imaging Using Radial Phase Encoding-Phase Ordering With Automatic Window Selection, Christoph Kolbitsch, Claudia Prieto, Jouke Smink, and Tobias Schaeffter .................................................. 1008 Published online 24 March 2011

Sparse-CAPR: Highly Accelerated 4D CE-MRA With Parallel Imaging and Nonconvex Compressive Sensing, Joshua D. Trzasko, Clifton R. Haider, Eric A. Borisch, Norbert G. Campeau, James F. Glockner, Stephen J. Riederer, and Armando Manduca ........................................... 1019 Published online 23 May 2011

Saturation Power Dependence of Amide Proton Transfer Image Contrasts in Human Brain Tumors and Strokes at 3 T, Xuna Zhao, Zhibo Wen, Fanheng Huang, Shilong Lu, Xianlong Wang, Shuguang Hu, Donglin Zu, and Jinyuan Zhou ........................... 1033 Published online 10 March 2011
## CONTENTS

### PRECLINICAL AND CLINICAL IMAGING

**Full Papers**

- Quantitative Tracking of Edema, Hemorrhage, and Microvascular Obstruction in Subacute Myocardial Infarction in a Porcine Model by MRI, Niles R. Ghugre, Venkat Ramanan, Mihaela Pop, Yuesong Yang, Jennifer Barry, Beiying Qiang, Kim A. Connelly, Alexander J. Dick, and Graham A. Wright ........................................ 1129  
  *Published online 17 February 2011*

- Insight into In Vivo Magnetization Exchange in Human White Matter Regions, Saeed Kalantari, Cornelia Laule, Thorarin A. Bjarnason, Irene M. Vavasour, and Alex L. MacKay ............. 1142  
  *Published online 4 March 2011*

- A Molecular MRI Probe to Detect Treatment of Cardiac Apoptosis In Vivo, Rajesh Dash, Jae-hoon Chung, Trevor Chan, Mayumi Yamada, Joëlle Barral, Dwight Nishimura, Phillip C. Yang, and Paul C. Simpson ........................................ 1152  
  *Published online 28 February 2011*

  *Published online 9 March 2011*

### BIOPHYSICS AND BASIC BIOMEDICAL RESEARCH

**Communication**

  *Published online 23 September 2011*

### COMPUTER PROCESSING AND MODELING

**Full Paper**

- Generation of an Atlas of the Proximal Femur and Its Application to Trabecular Bone Analysis, Julio Carballido-Gamio, Jenny Folkesson, Dimitrios Karampinos, Thomas Baum, Thomas M. Link, Sharmila Majumdar, and Roland Krug ........................................ 1181  
  *Published online 22 March 2011*

### HARDWARE AND INSTRUMENTATION

**Full Papers**

  *Published online 23 March 2011*