

CONTENTS

■ SPECTROSCOPIC METHODOLOGY

Full Papers

Amplification of the Effects of Magnetization Exchange by ^{31}P Band Inversion for Measuring Adenosine Triphosphate Synthesis Rates in Human Skeletal Muscle, Jimin Ren, A. Dean Sherry, and Craig R. Malloy 1505
Published online 2 December 2014

STEAM-MiTIS: An MR Spectroscopy Method for the Detection of Scalar-Coupled Metabolites and Its Application to Glutamate at 7 T, Alessandra Toncelli, Ralph Noeske, Mirco Cosottini, Mauro Costagli, Valentina Domenici, Gianluigi Tiberi, and Michela Tosetti 1515
Published online 22 December 2014

Note

Spectral-Editing Measurements of GABA in the Human Brain with and without Macromolecule Suppression, Ashley D. Harris, Nicolaas A.J. Puts, Peter B. Barker, and Richard A.E. Edden 1523
Published online 17 December 2014

■ PRECLINICAL AND CLINICAL SPECTROSCOPY

Full Paper

In Vivo Longitudinal Proton Magnetic Resonance Spectroscopy on Neonatal Hypoxic-Ischemic Rat Brain Injury: Neuroprotective Effects of Acetyl-L-Carnitine, Su Xu, Jaylyn Waddell, Wenjun Zhu, Da Shi, Andrew D. Marshall, Mary C. McKenna, and Rao P. Gullapalli 1530
Published online 2 December 2014

Note

Hyperpolarized $[\text{U-}^2\text{H}, \text{U-}^{13}\text{C}]$ Glucose Reports on Glycolytic and Pentose Phosphate Pathway Activity in EL4 Tumors and Glycolytic Activity in Yeast Cells, Kerstin N. Timm, Johannes Hartl, Markus A. Keller, De-En Hu, Mikko I. Kettunen, Tiago B. Rodrigues, Markus Ralsler, and Kevin M. Brindle 1543
Published online 17 December 2014

■ IMAGING METHODOLOGY

Rapid Communications

Quantifying Temperature-Dependent T_1 Changes in Cortical Bone Using Ultrashort Echo-Time MRI, Misung Han, Viola Rieke, Serena J. Scott, Eugene Ozhinsky, Vasant A. Salgaonkar, Peter D. Jones, Peder E. Z. Larson, Chris J. Diederich, and Roland Krug 1548
Published online 21 September 2015

Dynamic Glucose Enhanced (DGE) MRI for Combined Imaging of Blood-Brain Barrier Break Down and Increased Blood Volume in Brain Cancer, Xiang Xu, Kannie W.Y. Chan, Linda Knutsson, Dmitri Artemov, Jiadi Xu, Guanshu Liu, Yoshinori Kato, Bachchu Lal, John Laterra, Michael T. McMahon, and Peter C.M. van Zijl 1556
Published online 25 September 2015

Full Papers

Characterizing the Limits of MRI Near Metallic Prostheses, Matthew R. Smith, Nathan S. Artz, Curtis Wiens, Diego Hernando, and Scott B. Reeder 1564
Published online 5 December 2014

Wavelet-Space Correlation Imaging for High-Speed MRI without Motion Monitoring or Data Segmentation, Yu Li, Hui Wang, Jean Tkach, David Roach, Jason Woods, and Charles Dumoulin 1574
Published online 2 December 2014

Patch Based Reconstruction of Undersampled Data (PROUD) for High Signal-to-Noise Ratio and High Frame Rate Contrast Enhanced Liver Imaging, Mitchell A. Cooper, Thanh D. Nguyen, Bo Xu, Martin R. Prince, Michael Elad, Yi Wang, and Pascal Spincemaille 1587
Published online 6 December 2014

The Effects of SENSE on PROPELLER Imaging, Yuchou Chang, James G. Pipe, John P. Karis, Wende N. Gibbs, Nicholas R. Zwart, and Michael Schär 1598
Published online 17 December 2014

Contrast Enhancement by Combining T1- and T2-Weighted Structural Brain MR Images, Masaya Misaki, Jonathan Savitz, Vadim Zotev, Raquel Phillips, Han Yuan, Kymberly D. Young, Wayne C. Drevets, and Jerzy Bodurka 1609
Published online 22 December 2014

MR Fingerprinting Using Fast Imaging with Steady State Precession (FISP) with Spiral Readout, Yun Jiang, Dan Ma, Nicole Seiberlich, Vikas Gulani, and Mark A. Griswold 1621
Published online 9 December 2014

Combined Outer Volume Suppression and T_2 Preparation Sequence for Coronary Angiography, Jieying Luo, Nii Okai Addy, R. Reeve Ingle, Brian A. Hargreaves, Bob S. Hu, Dwight G. Nishimura, and Taehoon Shin 1632
Published online 17 December 2014

CONTENTS

Feasibility and Reproducibility of Measurement of Whole Muscle Blood Flow, Oxygen Extraction, and VO₂ with Dynamic Exercise Using MRI, Kory W. Mathewson, Mark J. Haykowsky, and Richard B. Thompson 1640
Published online 22 December 2014

Highly Undersampled Contrast-Enhanced MRA with Iterative Reconstruction: Integration in a Clinical Setting, Aurelien F. Stalder, Michaela Schmidt, Harald H. Quick, Marc Schlamann, Stefan Maderwald, Peter Schmitt, Qiu Wang, Mariappan S. Nadar, and Michael O. Zenge 1652
Published online 17 December 2014

All-Systolic Non-ECG-gated Myocardial Perfusion MRI: Feasibility of Multi-Slice Continuous First-Pass Imaging, Behzad Sharif, Reza Arsanjani, Rohan Dharmakumar, C. Noel Bairey Merz, Daniel S. Berman, and Debiao Li 1661
Published online 6 June 2015

Notes

Prospective Motion Correction of Segmented Diffusion Weighted EPI, Michael Herbst, Benjamin Zahneisen, Benjamin Knowles, Maxim Zaitsev, and Thomas Ernst 1675
Published online 1 December 2014

Chemical Shift Encoded Imaging of Hyperpolarized ¹³C Pyruvate, Curtis N. Wiens, Lanette J. Friesen-Waldner, Trevor P. Wade, Kevin J. Sinclair, and Charles A. McKenzie 1682
Published online 26 November 2014

Continuously Moving Table MRI with Golden Angle Radial Sampling, Saikat Sengupta, David S. Smith, and E. Brian Welch 1690
Published online 2 December 2014

Efficient Generation of T₂*-Weighted Contrast by Interslice Echo-Shifting for Human Functional and Anatomical Imaging at 9.4 Tesla, Philipp Ehses, Jonas Bause, G. Shajan, and Klaus Scheffler 1698
Published online 2 December 2014

■ PRECLINICAL AND CLINICAL IMAGING

Full Papers

Quantification of Perfusion in Murine Myocardium: A Retrospectively Triggered T₁-Based ASL Method Using Model-Based Reconstruction, Fabian T. Gutjahr, Thomas Kampf, Patrick Winter, Cord B. Meyer, Tatjana Williams, Peter M. Jakob, Wolfgang R. Bauer, Christian H. Ziener, and Xavier Helluy 1705
Published online 1 December 2014

Spatial Heterogeneity of Four-Dimensional Relative Pressure Fields in the Human Left Ventricle, Jonatan Eriksson, Ann F. Bolger, Carl-Johan Carlhäll, and Tino Ebbers 1716
Published online 26 November 2014

Notes

Pulmonary Hyperpolarized ¹²⁹Xe Morphometry for Mapping Xenon Gas Concentrations and Alveolar Oxygen Partial Pressure: Proof-of-Concept Demonstration in Healthy and COPD Subjects, A. Ouriadov, A. Farag, M. Kirby, D.G. McCormack, G. Parraga, and G.E. Santyr 1726
Published online 5 December 2014

Microscopic Diffusion Properties of Fixed Breast Tissue: Preliminary Findings, Narina Norddin, Carl Power, Geoffrey Watson, Gary Cowin, Nyoman D. Kurniawan, Laurence Gluch, and Roger M. Bourne 1733
Published online 17 December 2014

■ BIOPHYSICS AND BASIC BIOMEDICAL RESEARCH

Full Papers

Spin-Lock MR Enhances the Detection Sensitivity of Superparamagnetic Iron Oxide Particles, Rik P. M. Moonen, Pieternel van der Tol, Stefanie J. C. G. Hectors, Lucas W. E. Starmans, Klaas Nicolay, and Gustav J. Strijkers 1740
Published online 2 December 2014

Engineering an Effective Mn-Binding MRI Reporter Protein by Subcellular Targeting, Benjamin B. Bartelle, Miyeko D. Mana, Giselle A. Suero-Abreu, Joe J. Rodriguez, and Daniel H. Turnbull 1750
Published online 17 December 2014

■ COMPUTER PROCESSING AND MODELING

Full Papers

Estimation of Arterial Arrival Time and Cerebral Blood Flow from QUASAR Arterial Spin Labeling Using Stable Spline, Marco Castellaro, Denis Peruzzo, Amit Mehndiratta, Gianluigi Pillonetto, Esben Thade Petersen, Xavier Golay, Michael A. Chappell, and Alessandra Bertoldo 1758
Published online 26 November 2014

Toward Tract-Specific Fractional Anisotropy (TSFA) at Crossing-Fiber Regions with Clinical Diffusion MRI, Virendra Mishra, Xiaohu Guo, Mauricio R. Delgado, and Hao Huang 1768
Published online 1 December 2014

■ HARDWARE AND INSTRUMENTATION

Full Papers

Analysis of Eddy Currents Induced by Transverse and Longitudinal Gradient Coils in Different Tungsten Collimators Geometries for SPECT/MRI Integration, Amine M. Samoudi, Karen Van Audenhaege, Günter Vermeeren, Michael Poole, Emmeric Tanghe, Luc Martens, Roel Van Holen, and Wout Joseph 1780
Published online 26 November 2014

CONTENTS

**Controlling Radiofrequency-Induced Currents in
Guidewires Using Parallel Transmit,**

Maryam Etezadi-Amoli, Pascal Stang, Adam Kerr,
John Pauly, and Greig Scott 1790

Published online 17 December 2014

Note

**Radiofrequency Configuration to Facilitate
Bilateral Breast ³¹P MR Spectroscopic Imaging
and High-Resolution MRI at 7 Tesla,**

Tijl A. van der Velden, Michel Italiaander,
Wybe J.M. van der Kemp,
Alexander J.E. Raaijmakers, A.M. Th. Schmitz,
Peter R. Lijten, Vincent O. Boer,
and Dennis W.J. Klomp 1803

Published online 17 December 2014