

CONTENTS

■ SPECTROSCOPIC METHODOLOGY

Full Paper

- J-Refocused Coherence Transfer Spectroscopic Imaging at 7 T in Human Brain,** J.W. Pan, N. Avdievich, and H. P. Hetherington 1237
Published online 20 July 2010

Note

- Measurement of *N*-Acetylaspartylglutamate in the Human Frontal Brain by ¹H-MRS at 7 T,** Changho Choi, Subroto Ghose, Jinsoo Uh, Aditya Patel, Ivan E. Dimitrov, Hanzhang Lu, Deborah Douglas, and Sandeep Ganji 1247
Published online 1 July 2010

■ BIOPHYSICS & BASIC BIOMEDICAL RESEARCH

Full Papers

- In Vivo Observation of Intracellular Oximetry in Perfluorocarbon-Labeled Glioma Cells and Chemotherapeutic Response in the CNS Using Fluorine-19 MRI,** Deepak K. K. Kadayakkara, Jelena M. Janjic, Lisa K. Pusateri, Won-Bin Young, and Eric T. Ahrens 1252
Published online 21 September 2010

- Simplified Synthesis and Relaxometry of Magnetoferritin for Magnetic Resonance Imaging,** Veronica Clavijo Jordan, Michael R. Caplan, and Kevin M. Bennett 1260
Published online 30 July 2010

- Delayed Contrast-Enhanced MRI of Cartilage: Comparison of Nonionic and Ionic Contrast Agents,** Wei Li, Rachel Scheidegger, Ying Wu, Robert R. Edelman, Michelle Farley, Nitya Krishnan, Deborah Burstein, and Pottumarthi V. Prasad 1267
Published online 20 July 2010

- The Biodistribution of [¹⁵³Gd]Gd-Labeled Magnetic Resonance Contrast Agents in a Transgenic Mouse Model of Renal Failure Differs Greatly from Control Mice,** Thaddeus J. Wadas, Christopher D. Sherman, Jeffrey H. Miner, James R. Duncan, and Carolyn J. Anderson 1274
Published online 20 July 2010

- Determination of Three-Dimensional Ventricular Strain Distributions in Gene-Targeted Mice Using Tagged MRI,** Joyce S. Chuang, Alice Zemljic-Harpf, Robert S. Ross, Lawrence R. Frank, Andrew D. McCulloch, and Jeffrey H. Omens 1281
Published online 14 July 2010

■ IMAGING METHODOLOGY

Communication

- Estimation of Perfusion and Arterial Transit Time in Myocardium Using Free-Breathing Myocardial Arterial Spin Labeling With Navigator-Echo,** Danny J. J. Wang, Xiaoming Bi, Brian B. Avants, Tongbai Meng, Sven Zuehlsdorff, and John A. Detre 1289
Published online 23 September 2010

Full Papers

- Rapid T₁ Mapping of Mouse Myocardium With Saturation Recovery Look-Locker Method,** Wen Li, Mark Griswold, and Xin Yu 1296
Published online 14 July 2010

- Metric Optimized Gating for Fetal Cardiac MRI,** Michael S. Jansz, Mike Seed, Joshua F. P. van Amerom, Derek Wong, Lars Grosse-Wortmann, Shi-Joon Yoo, and Christopher K. Macgowan 1304
Published online 14 July 2010

- Strain and Torsion Quantification in Mouse Hearts Under Dobutamine Stimulation Using 2D Multiphase MR Dense,** Jia Zhong and Xin Yu 1315
Published online 25 August 2010

- Rapid Multislice Imaging of Hyperpolarized ¹³C Pyruvate and Bicarbonate in the Heart,** Angus Z. Lau, Albert P. Chen, Nilesh R. Ghugre, Venkat Ramanan, Wilfred W. Lam, Kim A. Connelly, Graham A. Wright, and Charles H. Cunningham, 1323
Published online 22 June 2010

- Improved Carotid Intraplaque Hemorrhage Imaging Using a Slab-Selective Phase-Sensitive Inversion-Recovery (SPI) Sequence,** Jinnan Wang, Marina S. Ferguson, Niranjana Balu, Chun Yuan, Thomas S. Hatsukami, and Peter Börner 1332
Published online 1 July 2010

CONTENTS

An Optimized 3D Spoiled Gradient Recalled Echo Pulse Sequence for Hemorrhage Assessment Using Inversion Recovery and Multiple Echoes (3D SHINE) for Carotid Plaque Imaging, David C. Zhu, Anthony T. Vu, Hideki Ota, and J. Kevin DeMarco..... 1341
Published online 22 June 2010

Improved Renal Perfusion Measurement With a Dual Navigator-Gated Q2TIPS Fair Technique, Ruitian Song, Ralf B. Loeffler, and Claudia M. Hillenbrand..... 1352
Published online 30 June 2010

Temperature-Induced Tissue Susceptibility Changes Lead to Significant Temperature Errors in PRFS-Based MR Thermometry During Thermal Interventions, Sara M. Sprinkhuizen, Maurits K. Konings, Martijn J. van der Bom, Max A. Viergever, Chris J. G. Bakker, and Lambertus W. Bartels..... 1360
Published online 20 July 2010

Motion Correction in MR Thermometry of Abdominal Organs: a Comparison of the Referenceless vs. the Multibaseline Approach, Baudouin Denis de Senneville, Sébastien Roujol, Chrit Moonen, and Mario Ries..... 1373
Published online 30 July 2010

Human Brain Atlas-Based Volumetry and Relaxometry: Application to Healthy Development and Natural Aging, Khader M. Hasan, Indika S. Walimuni, Larry A. Kramer, and Richard E. Frye..... 1382
Published online 25 August 2010

Reconstruction of MRI Data Encoded with Arbitrarily Shaped, Curvilinear, Nonbijective Magnetic Fields, Gerrit Schultz, Peter Ullmann, Heinrich Lehr, Anna M. Welz, Jürgen Hennig, and Maxim Zaitsev..... 1390
Published online 16 September 2010

Balanced SSFP Transient Imaging Using Variable Flip Angles for a Predefined Signal Profile, Pauline W. Worters and Brian A. Hargreaves..... 1405
Published online 14 July 2010

Coherence Regularization for SENSE Reconstruction With a Nonlocal Operator (CORNOL), Sheng Fang, Kui Ying, Li Zhao, and Jianping Cheng 1414
Published online 30 August 2010

Notes

Multicomponent T_2^* Mapping of Knee Cartilage: Technical Feasibility Ex Vivo, Yongxian Qian, Ashley A. Williams, Constance R. Chu, and Fernando E. Boada 1427
Published online 23 September 2010

Minimum Envelope Roughness Pulse Design for Reduced Amplifier Distortion in Parallel Excitation, William A. Grissom, Adam B. Kerr, Pascal Stang, Greig C. Scott, and John M. Pauly 1433
Published online 14 July 2010

Simultaneous Quantification of T_2 and T_2^* Using a Combined Gradient Echo-Spin Echo Sequence at Ultrahigh Field, Eleanor F. Cox and Penny A. Gowland 1441
Published online 30 June 2010

Acoustic Noise-Optimized VERSE Pulses, S. Schmitter and M. Bock..... 1447
Published online 1 July 2010

■ PRECLINICAL AND CLINICAL IMAGING

Full Papers

Rotating Frame Spin Lattice Relaxation in a Swine Model of Chronic, Left Ventricular Myocardial Infarction, Walter R. T. Witschey, James J. Pilla, Giovanni Ferrari, Kevin Koomalsingh, Mohammed Haris, Robin Hinmon, Gerald Zsido, Joseph H. Gorman III, Robert C. Gorman, and Ravinder Reddy..... 1454
Published online 30 July 2010

Comparison of the Quantitative First Pass Myocardial Perfusion MRI With and Without Prospective Slice Tracking: Comparison Between Breath-Hold and Free-Breathing Condition, Dirk Ernst Johannes Cleppien, Georg Horstick, Nico Abegunewardene, Stefan Weber, Christian Ernst Müller, Axel Heimann, Karl-Friedrich Kreitner, Oliver Kempfski, and Laura Maria Schreiber..... 1462
Published online 1 July 2010

Quantitative Assessment of Left Ventricular Function in Humans at 7 T, Anne Brandts, Jos J. M. Westenberg, Maarten J. Versluis, Lucia J. M. Kroft, Nadine B. Smith, Andrew G. Webb, and Albert de Roos 1472
Published online 30 June 2010

Visualization of Inert Gas Wash-Out During High-Frequency Oscillatory Ventilation Using Fluorine-19 MRI, Ursula Wolf, Alexander Scholz, Maxim Terekhov, Rainer Koebrich, Matthias David, and Laura Maria Schreiber..... 1479
Published online 30 June 2010

Measurement of Alveolar Oxygen Partial Pressure in the Rat Lung Using Carr-Purcell-Meiboom-Gill Spin-Spin Relaxation Times of Hyperpolarized ^3He and ^{129}Xe at 74 mT, Ryan J. Kraayvanger, Christopher P. Bidinosti, William Dominguez-Viqueira, Juan Parra-Robles, Matthew Fox, Wilfred W. Lam, and Giles E. Santyr..... 1484
Published online 30 June 2010

CONTENTS

Ultrashort Echo Time (UTE) MRI of the Lung: Assessment of Tissue Density in the Lung Parenchyma, Osamu Togao, Riki Tsuji, Yoshiharu Ohno, Ivan Dimitrov, and Masaya Takahashi..... 1491
Published online 22 June 2010

Assessment of Multiexponential Diffusion Features as MRI Cancer Therapy Response Metrics, Benjamin A. Hoff, Thomas L. Chenevert, Mahaveer S. Bhojani, Thomas C. Kwee, Alnawaz Rehemtulla, Denis Le Bihan, Brian D. Ross, and Craig J. Galbán 1499
Published online 21 September 2010

Longitudinal Tracking of Human Dendritic Cells in Murine Models Using Magnetic Resonance Imaging, Karen C. Briley-Saebo, Marylene Leboeuf, Stephen Dickson, Venkatesh Mani, Zahi A. Fayad, A. Karolina Palucka, Jacques Banchereau, and Miriam Merad 1510
Published online 30 June 2010

Magnetization Transfer Ratio Mapping of Intervertebral Disc Degeneration, Chenyang Wang, Walter Witschey, Ari Goldberg, Mark Elliott, Arijitt Borthakur, and Ravinder Reddy 1520
Published online 30 July 2010

■ COMPUTER PROCESSING AND MODELING

Full Paper

A General Framework for the Analysis of Vessel Encoded Arterial Spin Labeling for Vascular Territory Mapping, Michael A. Chappell, Thomas W. Okell, Peter Jezzard, and Mark W. Woolrich 1529
Published online 30 July 2010

■ ERRATUM

Erratum to Brown, et al. Effect of Blood Flow on Double Inversion Recovery Vessel Wall MRI of the Peripheral Arteries: Quantitation with T2 Mapping and Comparison with Flow-Insensitive T2-Prepared Inversion Recovery Imaging. *Magn Reson Med 2010; 63: 736-744.*, Ryan Brown, Thanh D. Nguyen, Pascal Spincemaille, Matthew D. Cham, Grace Choi, Priscilla A. Winchester, Martin R. Prince, and Yi Wang 1540