

CME Information

- 1269 Magnetic Resonance Imaging Evaluation of Renal Structure and Function Related to Disease: Technical Review of Image Acquisition, Postprocessing, and Mathematical Modeling Steps**

Review

CME

- 1270 Magnetic Resonance Imaging Evaluation of Renal Structure and Function Related to Disease: Technical Review of Image Acquisition, Postprocessing, and Mathematical Modeling Steps**

Richard A. Jones, John R. Votaw, Khalil Salman, Puneet Sharma, C. Lurie, Bobby Kalb, and Diego R. Martin

Original Research

Neuroimaging

- 1284 Detection of Early Response to Temozolomide Treatment in Brain Tumors Using Hyperpolarized ¹³C MR Metabolic Imaging**

Ilwoo Park, Robert Bok, Tomoko Ozawa, Joanna J. Phillips, C. David James, Daniel B. Vigneron, Sabrina M. Ronen, and Sarah J. Nelson

- 1291 Dual-Temporal Resolution Dynamic Contrast-Enhanced MRI Protocol for Blood-Brain Barrier Permeability Measurement in Enhancing Multiple Sclerosis Lesions**

I.O. Jelescu, I.R. Leppert, S. Narayanan, D. Araújo, D.L. Arnold, and G.B. Pike

- 1301 Preclinical Use of Longitudinal MRI for Screening the Efficacy of S-Nitrosoglutathione in Treating Spinal Cord Injury**

Peter Cheng-te Chou, Anandakumar Shunmugavel, Hanaa El Sayed, Mohamed Mokhtar Desouki, Shaun A. Nguyen, Mushfiquddin Khan, Inderjit Singh, and Mehmet Bilgen

- 1312 Quantitative Assessment of the Cervical Spinal Cord Damage in Neuromyelitis Optica Using Diffusion Tensor Imaging at 3 Tesla**

Wenshu Qian, Queenie Chan, Henry Mak, Zhongping Zhang, Marina-Portia Anthony, Kelvin Kai-Wing Yau, Pek-Lan Khong, Koon Ho Chan, and Mina Kim

Cardiovascular Imaging

- 1321 Measurement of Aortic Arch Pulse Wave Velocity in Cardiovascular MR: Comparison of Transit Time Estimators and Description of a New Approach**

Anas Dogui, Alban Redheuil, Muriel Lefort, Alain DeCesare, Nadja Kachenoura, Alain Herment, and Elie Mousseaux

- 1330 Practical Signal-to-Noise Ratio Quantification for Sensitivity Encoding: Application to Coronary MR Angiography**

Jing Yu, Harsh Agarwal, Matthias Stuber, and Michael Schär

- 1341 Cardiovascular MR Dobutamine Stress in Adult Tetralogy of Fallot: Disparity Between CMR Volumetry and Flow for Cardiovascular Function**

Israel Valverde, Victoria Parish, Aphrodite Tzifa, Catherine Head, Samir Sarikouch, Gerald Greil, Tobias Schaeffter, Reza Razavi, and Philipp Beerbaum

Thoracic Imaging

- 1351 MR Elastography of Human Lung Parenchyma: Technical Development, Theoretical Modeling and In Vivo Validation**

Yogesh K. Mariappan, Kevin J. Glaser, Rolf D. Hubmayr, Armando Manduca, Richard L. Ehman, and Kiaran P. McGee

- 1362 Early Onset of Retrograde Flow in the Main Pulmonary Artery is a Characteristic of Pulmonary Arterial Hypertension**

Frank Helderma, Gert-Jan Mauritz, Kirsten E. Andringa, Anton Vonk-Noordegraaf, and J. Tim Marcus

Breast Imaging

- 1369 Morphological Manifestations of Nonpuerperal Mastitis on Magnetic Resonance Imaging**

Haiquan Liu and Weijun Peng

- 1375 Breast Diffusion-Weighted MRI: Comparison of Tetrahedral Versus Orthogonal Diffusion Sensitization for Detection and Localization of Mass Lesions**
Takashi Ueguchi, Sachiko Yamada, Naoki Mihara, Yoshihiro Koyama, Hiromitsu Sumikawa, and Noriyuki Tomiyama
- 1382 The Diverse Pathology and Kinetics of Mass, Nonmass, and Focus Enhancement on MR Imaging of the Breast**
Sanaz A. Jansen, Akiko Shimauchi, Lindsay Zak, Xiaobing Fan, Gregory S. Karczmar, and Gillian M. Newstead
- Gastrointestinal Imaging** **1390 Hepatic Fat Quantification Using Chemical Shift MR Imaging and MR Spectroscopy in the Presence of Hepatic Iron Deposition: Validation in Phantoms and in Patients With Chronic Liver Disease**
Seung Soo Lee, Youngjoo Lee, Namkug Kim, Seong Who Kim, Jae Ho Byun, Seong Ho Park, Moon-Gyu Lee, and Hyun Kwon Ha
- 1399 MRI Findings of Recurrent Hepatocellular Carcinoma After Liver Transplantation: Preliminary Results**
Chang Hee Lee, Lauren M. Brubaker, David A. Gerber, Young Mi Ku, Young Hoon Kim, Sang Soo Shin, and Richard C. Semelka
- Genitourinary Imaging** **1406 Vascular Staging of Renal and Adrenal Malignancies With a Noncontrast Enhanced Steady State Free Precession Technique**
Christine U. Lee and James F. Glockner
- 1414 Reproducibility of Renal Perfusion MR Imaging in Native and Transplanted Kidneys Using Non-Contrast Arterial Spin Labeling**
Nathan S. Artz, Elizabeth A. Sadowski, Andrew L. Wentland, Arjang Djamali, Thomas M. Grist, Songwon Seo, and Sean B. Fain
- Musculoskeletal Imaging** **1422 Segmentation of the Quadratus Lumborum Muscle Using Statistical Shape Modeling**
Craig M. Engstrom, Jurgen Fripp, Valer Jurcak, Duncan G. Walker, Olivier Salvado, and Stuart Crozier
- Vascular Imaging** **1430 Noncontrast MR Angiography for Comprehensive Assessment of Abdominopelvic Arteries Using Quadruple Inversion-Recovery Preconditioning and 3D Balanced Steady-State Free Precession Imaging**
Iliyana P. Atanasova, Daniel Kim, Ruth P. Lim, Pippa Storey, Sooah Kim, Hua Guo, and Vivian S. Lee
- 1440 Diagnostic Value of the Flow Profile in the Distal Descending Aorta by Phase-Contrast Magnetic Resonance for Predicting Severe Coarctation of the Aorta**
Stefano Muzzarelli, Karen Gomes Ordovas, Michael D. Hope, Jeffery J. Meadows, Charles B. Higgins, and Alison Knauth Meadows
- Spectroscopic Imaging** **1447 Adiabatic Localized Correlation Spectroscopy (AL-COSY): Application in Muscle and Brain**
Saadallah Ramadan and Carolyn E. Mountford
- Technical Developments** **1456 Signal to Noise Ratio and Uncertainty in Diffusion Tensor Imaging at 1.5, 3.0, and 7.0 Tesla**
Daniel L. Polders, Alexander Leemans, Jeroen Hendrikse, Manus J. Donahue, Peter R. Luijten, and Johannes M. Hoogduin
- 1464 Fast Lipid and Water Levels by Extraction with Spatial Smoothing (FLAWLESS): Three-Dimensional Volume Fat/Water Separation at 7 Tesla**
Sreenath Narayan, Fangping Huang, David Johnson, Madhusudhana Gargasha, Chris A. Flask, Guo-Qiang Zhang, and David L. Wilson
- 1474 Proton Resonance Frequency Shift-Weighted Imaging for Monitoring MR-Guided High-Intensity Focused Ultrasound Transmissions**
Jyun-Wen Chen, Teng-Yi Huang, Hsu-Hsia Peng, Wen-Shiang Chen, and Wen-Yih Isaac Tseng

1482 Comparison of a Single Shot T1-Weighted In- and Out-of-Phase Magnetization Prepared Gradient Recalled Echo with a Standard Two-Dimensional Gradient Recalled Echo: Preliminary Findings

Vasco Herédia, Miguel Ramalho, Rafael O.P. de Campos, Chang-Hee Lee, Brian Dale, Georgeta D. Vaidean, and Richard C. Semelka

1491 Impact of Outliers on Diffusion Tensor and q-Ball Imaging: Clinical Implications and Correction Strategies

Michael A. Sharman, Julien Cohen-Adad, Maxime Descoteaux, Arnaud Messé, Habib Benali, and Stéphane Lehericy

Technical Notes

1503 Comparative Study of Standard Space and Real Space Analysis of Quantitative MR Brain Data

Benjamin S. Aribisala, Jiabao He, and Andrew M. Blamire

1510 Reduced Transverse Relaxation Rate (RR2) for Improved Sensitivity in Monitoring Myocardial Iron in Thalassemia

Jerry S. Cheung, Wing-Yan Au, Shau-Yin Ha, Daniel Kim, Jens H. Jensen, Iris Y. Zhou, Matthew M. Cheung, Yin Wu, Hua Guo, Pek-Lan Khong, Truman R. Brown, Gary M. Brittenham, and Ed X. Wu

1517 Targeted Single-Shot Methods for Diffusion-Weighted Imaging in the Kidneys

Ning Jin, Jie Deng, Longjiang Zhang, Zhuoli Zhang, Guangming Lu, Reed A. Omary, and Andrew C. Larson

Book Review

1526 The Teaching Files: Musculoskeletal

James Costello and Diego R. Martin

Erratum

1527 Haacke EM, Tang J, Neelavalli J, Cheng YCN. Susceptibility mapping as a means to visualize veins and quantify oxygen saturation. J Magn Reson Imaging 2010;32:663-676