2023 ISMRM AMPC Selected Abstracts

AMPC SELECTED

0009 *Deuterium Metabolic Imaging (DMI) for 3D Mapping of Glucose Metabolism in Humans with Central Nervous System Lesions at 3T*
Philip Adamson
Stanford University

0031 *Iron accumulation and MRI iron contrast are not driven by amyloid plaques in posterior cortical atrophy*
Evgeniya Kirilina
Max Planck Institute for Human Cognitive and Brain Sciences

0039 *Total and regional brain volumes in fetuses with congenital heart disease*
Daniel Cromb
King's College London

0041 *Development of Infant Brain Functional Connectome Gradients during Age 0-6 Years*
Xinyi Cai
ShanghaiTech University

0044 *Causal evidence for cerebello-limbic-striatal circuit dynamics supporting depression*
Ruiping Zheng
the first affiliated hospital of zhengzhou university

0045 *Motion robust MR Fingerprinting scans for non-sedated infant imaging*
Chaitra Badve
University Hospitals Cleveland Medical Center

0047 *Macrovasculature-suppressed ASL MRI in neonates: quantification of cerebral blood flow and arterial transit time*
Zhiyi Hu
Johns Hopkins University School of Medicine

0050 *Optimization of the T2-weighted MRI contrast in 0-6-month-old infant brain based on extended phase graph theory*
Jiani Wu
Zhejiang University

0056 *Respiratory-motion-corrected simultaneous 3D T1, T2, and fat-fraction mapping at 0.55T, for comprehensive characterization of liver tissue*
Donovan Tripp
King's College London

0069 *What if every voxel was measured with a different diffusion protocol?*
Santiago Coelho
New York University School of Medicine

0096 *Fibromyalgia associates with pain-promoting and inhibitory functional connectivity of the default mode network in psoriatic arthritis.*
Kristian Stefanov
University of Glasgow

0097 *Sensitivity and Reproducibility of MRI Detection of Hourglass-Like Constrictions in Parsonage-Turner Syndrome*
Clare Nimura
Hospital for Special Surgery

0122 *Accelerated single UTE-Dixon for simultaneous short T2*water and fat imaging using a FLORET trajectory*
Anh Van
Technical University of Munich

0165 *Federated Learning for Utilizing Multi-Institutional Prostate MRI with Diverse Histopathology*
Abhejit Rajagopal
UCSF

0171 *In-Vivo CEST MRI to assess and identify myocardial infarction by using natural D- glucose as a contrast agent*
Ajay Peddi
Translational Research Imaging Center, Clinic of Radiology, University of Münster

2023 ISMRM AMPC Selected Abstracts

0187   *A voxel-wise composition ratio of DCE-MRI time-intensity curve profiles allows for visualizing and quantifying hemodynamic heterogeneity*
Bingyu Yao
Chinese Academy of Sciences

0209   *An Improved Intraoral Transverse Loop Coil Design for High Resolution Dental MRI*
Ali Özen
Division of Medical Physics, Department of Radiology, University Medical Center Freiburg

0299   *On-site construction of a point-of-care low-field MRI system in Africa*
Johnes Obungoloch
Mberara University of Science and Technology

0338   *Combination of irregular pulsation and aneurysm wall enhancement improved the diagnostic efficiency of symptomatic intracranial aneurysm*
Xiao Li
Ren ji Hospital, School of Medicine, Shanghai Jiaotong University

0367   *DEveloping Blood-Brain barrier arterial spin labeling as a non-Invasive Early biomarker (DEBBIE)*
Beatriz Padrela
Amsterdam UMC

0384   *Conditional Denoising Diffusion Probabilistic Models for Inverse MR Image Recovery*
Mahmut Yurt
Stanford University

0394   *Single breath-hold full abdominal T1 mapping using a CNN based short inversion-recovery sampling technique*
Eze Ahanonu
The University of Arizona

0395   *Single-shot T2-FLAIR mapping via inversion recovery multiple overlapping-echo acquisition and deep neural network reconstruction*
Yanhong Lin
Xiamen University

0396   *Phantom Results of the ISMRM Joint RRSG–qMRSG Reproducibility Challenge on T1 mapping*
Mathieu Boudreau
Polytechnique Montreal

0398   *Cross-vendor three-dimensional multiparametric mapping of the human brain: A traveling-subject and patient study*
Shohei Fujita
Juntendo University

0417   *White Matter Neurometabolite Vulnerability Predicts Cognitive Decline in Alzheimer's Disease: A High-Resolution 3D 1H-MRSI Study*
Danni Wang
Shanghai Jiao Tong University

0421   *MR Fingerprinting with a Deep Image Prior Reconstruction for Combined T1, T2, and M0 Mapping and Multi-Contrast Cine Imaging*
Jesse Hamilton
University of Michigan

0436   *Endometriosis targeted MRI imaging using bevacizumab-modified nanoparticles aiming at vascular endothelial growth factor*
Qi Zhang
Huashan hospital, Fudan University

0489   *Combined fMRS and fMRI During Reinforcement Learning in a Large Cohort at 7T: When Does Cognitive Processing Occur?*
Tal Finkelman
Weizmann Institute of Science

0511   *High-resolution single-breath-hold 3D MRCP using accelerated 3D Gradient and Spin-Echo (GraSE) with Compressed SENSE*
Takumi Ogawa
Tokyo Women's Medical University

0529   *Pseudo Partition-encoded Simultaneous Multislab (pPRISM) for Submillimeter Diffusion Imaging Without Navigator and Slab-Boundary Artifacts*
Wei-Tang Chang
UNC at Chapel Hill

0565   *Predictive Value of Diffusion Magnetic Resonance Imaging for the Postoperative Outcome of Cervical Spondylotic Myelopathy*
Ming Ni
Peking University Third Hospital

2023 ISMRM AMPC Selected Abstracts

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0839   *Pre-treatment hyperpolarized 13C-lactate to 13C-bicarbonate ratio predicts response of brain metastases to stereotactic radiosurgery*
Nicole Cappelletto
University of Toronto

0859   *K2S Challenge: From Undersampled K-Space to Automatic Segmentation*
Aniket Tolpadi
UCSF

0924   *4D flow MRI to evaluate flow and future liver remnant growth after portal vein embolization*
Thekla Oechtering
University of Wisconsin-Madison

0928   *A deep learning framework for cardiac self-gating in free-running radial 4D flow MRI*
Mariana Falcão
Lausanne University Hospital (CHUV) and University of Lausanne (UNIL)

0933   *End-to-end Automation of Quantitative Processing for 4D Flow MRI in the Aorta: Demonstration and Evaluation in 271 Subjects*
Ethan Johnson
Northwestern University

0956   *Assessing Sex Differences in Abdominal Fat Depots of People with Obesity under Weight Loss using Automated Segmentation*
Mingming Wu
School of Medicine, Technical University of Munich

0994   *Automated Surfaced-based Detection of Focal Cortical Dysplasia using MR Fingerprinting*
Ting-Yu Su
Cleveland Clinic

1009   *Towards rapid and accurate navigators for motion and B0 estimation using QUEEN (QUantitatively-Enhanced parameter Estimation from Navigators)*
Yannick Brackenier
Stanford University

1010   *High Temporal Resolution Head Motion Tracking using Pilot Tone and 3D Radials*
Tess Wallace
Boston Children's Hospital

1024   *A Multi-Subject Deconvolution Algorithm for the Analysis of Naturalistic fMRI data*
Eneko Uruñuela
Basque Center on Cognition, Brain and Language

1047   *A Deep learning informed Polynomial Fitting Approach for Electrical Properties Tomography*
Kyu-Jin Jung
Yonsei University

1055   *The FACE: Flexible Array for Cervical & Extraspinal 3T MR Imaging*
Frederik Abel
Hospital for Special Surgery

1089   *Improved R2* and QSM mapping for dummies - ask Adam*
José Marques
Radboud University

1095   *Is linear subspace constraint reconstruction suitable for multi-compartment T2 imaging? Evaluation and guidelines.*
Nadège Corbin
Centre de Résonance Magnétique et Systèmes Biologiques, UMR5536, CNRS, University of Bordeaux

1108   *Locally low-rank denoising in transform domains.*
Steen Moeller
University of Minnesota

1141   *Widespread, depth-dependent microstructural damage in the cortex of children with focal epilepsy: A quantitative T1 and T2 mapping study*
Chiara Casella
King's College London

1142   *T1 and T2 Mapping Using Highly Sparse Unsuppressed Water Signals from MRSI Scans with Generalized Series-Assisted Low-Rank Tensor Modelling*
Yudu Li
University of Illinois at Urbana-Champaign

1143   *Bilateral asymmetry of parenchymal kinetics from ultrafast DCE-MRI predicts HER2+ breast cancer response to neoadjuvant chemotherapy*
Zhen Ren
The University of Chicago

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1149   *Low spatial-frequency ripple artifacts in layer-fMRI EPI: Identification, cause, and mitigation strategies with Dual-polarity readout*
Renzo Huber
Maastricht University

1173   *DSC-derived perfusion map generation from DCE MRI using deep learning*
Haoyang Pei
Icahn School of Medicine at Mount Sinai

1174   *Modeling inflow effects in fast fMRI to quantify fluid flow*
Baarbod Ashenagar
Boston University

1215   *Dynamic glucose-enhanced imaging of the liver using breath-hold black blood quantitative T1rho MRI*
Yurui Qian
The Chinese University of Hong Kong

1243   *4D flow MRI for investigation of fetal cardiovascular hemodynamics in healthy development and ductal dependent lesions*
Erin Englund
University of Colorado, Anschutz Medical Campus

1244   *Multiresolution comparison of fetal CINE MRI at 0.55 T*
Datta Singh Goolaub
The Hospital for Sick Children

1248   *Development of the fetal brain structural connectivity during the second-to-third trimester based on diffusion MRI*
Ruike Chen
Zhejiang University

1253   *Association analysis of age-dependent changes in R1map at the brain region level with gene expression patterns*
Xiang Chen
Fudan University

1267   *Whole Body Mouse EPR Oxygen Imaging of Implanted Beta Cell Replacement Devices*
Mrignayani Kotecha
O2M Technologies, LLC

1282   *A complete cerebellar mean-field model ready to be integrated into whole-brain dynamic simulators*
Roberta Lorenzi
Università di Pavia

1285   *Diffusion weighted, intravoxel incoherent motion, diffusion kurtosis tensor MR imaging in chronic kidney disease: correlations with histology*
Jie Zhu
Beijing Hospital

1306   *Brain-wide fMRI Connectivity and Regional Genetic Modulations underlying Optogenetically-evoked Spindles in Rescuing Memory Decline in Aging*
Xunda Wang
The University of Hong Kong

1325   *AI-based Single-Click Cardiac MRI Exam: Initial Clinical Experience and Evaluation in 44 Patients*
Jens Wetzl
Siemens Healthcare GmbH

1328   *Development and Validation of a Radiomics Model in Differentiating Sinonasal Mucosal Melanomas from Sinonasal Lymphomas*
Shengyong Li
East China Normal University

1371   *Motion-Aware Neural Networks Improve Rigid Motion Correction of Accelerated Segmented Multislice MRI*
Nalini Singh
MIT

1374   *Cardiac MR Denoising Inline Neural Network (CaDIN).*
Siyeop Yoon
Beth Israel Deaconess Medical Center and Harvard Medical School

1375   *Improved Bayesian Brain MR Image Segmentation by Incorporating Subspace-Based Spatial Prior into Deep Neural Networks*
Yunpeng Zhang
School of Biomedical Engineering, Shanghai Jiao Tong University

2023 ISMRM AMPC Selected Abstracts

1378   *Towards Informative Uncertainty Measures for MRI Segmentation in Clinical Practice: Application to Multiple Sclerosis*
Nataliia Molchanova
Lausanne University Hospital (CHUV)

1387   *Enzyme Delivery to the Putamen in Parkinson's Disease Patients by MR-Guided Focused Ultrasound*
Yuexi Huang
Sunnybrook Research Institute

1398   *UTILITY OF OXYGEN-ENHANCED LUNG MRI IN LONG TERM POST-LUNG TRANSPLANT PATIENT CARE*
Milan Speth
Hannover Medical School

1424   *First QSM of an ex vivo human brain on the Iseult 11.7T whole-body system using parallel transmission and virtual coil reconstruction*
Mathieu Santin
Institut du Cerveau – Paris Brain Institute – ICM, INSERM, CNRS, Sorbonne Université

1427   *Regional quantification of cardiac metabolism with hyperpolarized [1-13C]-pyruvate MRI*
Peder Larson
University of California - San Francisco

1428   *Diabetic Treatment and Oral Ketone Supplement effect on Cardiac Function and Metabolism in Heart Failure Model by Cardiac and hyperpolarized MRSI*
David Guarin Bedoya
Massachusetts General Hospital

1429   *3D whole-heart joint T1/T1ρ/T2 mapping and water-fat imaging for contrast-agent free myocardial tissue characterization at 1.5T*
Michael Crabb
King's College London

1431   *Myofiber strain estimation using cDTI, DENSE, and feature tracking.*
Kevin Moulin
University of Lyon, UJM-Saint-Etienne, INSA, CNRS UMR 5520, INSERM U1206, CREATIS, F-42023

1432   *Accelerated 3D Stack-of-Spiral Cardiac Quantitative Susceptibility Mapping: Noninvasive Measurement of Heart Oxygenation in a Breath-Hold*
Jiahao Li
Cornell University

1442   *Diagnostic performance of Rapid Whole-body MRI with uniformly fat-suppressed T2-weighted imaging for multiple myeloma*
Rianne van der Heijden
University of Wisconsin-Madison

1450   *The Effect of Long-term Exercise Training on Metabolic Responses in Obese Zucker Fatty Diabetic Rats using Phosphorous-31 MRS*
Kihwan Kim
Case Western Reserve University

1600   *Simultaneous multi-slice real-time cardiac MRI at 0.55T*
Ecrin Yagiz
University of Southern California

2491   *Amide proton transfer-weighted MRI of brain tumors with fluid & solid compartment corrections using background magnetization transfer effects*
Osamu Togao
Graduate School of Medical Sciences, Kyushu University

2528   *Individualised perioperative brain growth in infants with congenital heart disease (CHD): correlation with clinical risk factors*
Daniel Cromb
King's College London

4543   *Continuous wave radar for carotid pulse sensing in Magnetic Resonance Imaging*
Renesmee Kuo
Stanford University

5078   *Wearable and stretchable RF coils using self-decoupling technology*
Shuyang Chai
Vanderbilt University Medical Center