2025 ISMRM AMPC Selected Abstracts

0130 *Disentangling microscopic anisotropy and diffusion time dependence in the brain using oscillating gradients with spherical b-tensor encoding*
Manisha Aggarwal
Johns Hopkins University School of Medicine

0303 *Evaluating Stack-of-Stars and FLORET 3D Ultrashort Echo Time MRI to Assess Structural Pathology in Cystic Fibrosis Lung Disease*
Abdullah Bdaiwi
Cincinnati Children's Hospital Medical Center

1009 *Enhancing brain activity mapping through BOLD-fMRI and MEG data fusion using explainable machine learning.*
Jiri Benacek
Cardiff University

0610 *Visual Evaluative Control Technology Of Resonance Spectroscopy (VECTORS): Automated Data Quality Control Pipeline for Spectroscopy Data*
Bodhi Beroukhim
Brigham and Women's Hospital

0203 *Mapping inter-brain synchrony in awake, socially interacting mice using SORDINO hyperscanning*
Tzu-Hao Chao
The University of North Carolina at Chapel Hill

0664 *Distortion-Free Diffusion-Weighted Imaging of the Prostate Using TGSE-Based Golden-Angle PROPELLER Acquisition and Deep Learning Denoising*
Jingjia Chen
New York University Grossman School of Medicine

3984 *No Annotate Again (NAA): Realistic Image and Annotation Synthesis for Multi-Contrast MRI through Diffusion without Paired Data*
Xiao Chen
UII America Inc.

1152 *Dynamic CEST Imaging of Extracellular Lactate In Vivo in Subcutaneous Tumors using PARACEST Shift Reagents*
Remy Chiaffarelli
University Hospital Tuebingen

0677 *Active Electromagnetic Interference Suppression for Real-Time MR Thermometry During MR-Guided Microwave Ablation*
Qing Dai
University of California, Los Angeles

1261 *Mesoscale fMRI at ultra-high spatiotemporal resolutions using 3D Echo Planar TIme- and DYnamic-resolved Imaging (TIDY)*
Zijing Dong
Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital

0123 *Calibration-free DCE-MRI with Sub-second Temporal Resolution Using Interpretable Implicit Neural Representation*
Jie Feng
Shanghai Jiao Tong University

3619 *Real-time Registration In K-space For Cardiac Cine MR Of The Fetal Heart*
Aya Ghoul
University Hospital of Tübingen

0423 *Diagnosing Intramyocardial Hemorrhage using Free-Breathing, Cardiac QSM with Full LV Coverage: Clinical Findings with Validations in Canines*
Yuheng Huang
Indiana University School of Medicine

0054 *Predicting Adverse Outcomes for BAV Aortopathy Patients by Fluid Physics-Informed Velocity Estimation from Contrast-Enhanced MR Angiography*
Ethan Johnson
Northwestern University

2025 ISMRM AMPC Selected Abstracts

0940 *The Cancer Imaging Data Commons: Paving the Way for Open Science*
Ron Kikinis
Harvard Medical School

0016 *Harmonization for a black-box deep learning model*
Minjun Kim
Seoul National University

0175 *Simulation of the dB/dt-over-electric field cardiac magnetostimulation safety ratio in 75 body models and 18 gradient systems*
Valerie Klein
Department of Radiology, Massachusetts General Hospital

1164 *MRE-Assessed Hepatic Stiffness Gradient Distinguishes Congestive Hepatopathy from Non-congestive Chronic Liver Disease*
Jiahui Li
Mayo Clinic

1004 *Association between choroid plexus features, AD pathology, and cognitive impairment in non-demented participants: a longitudinal study*
Miao Lin
The 2nd Affiliated Hospital, Zhejiang University School of Medicine

0726 *Alteration of Water Exchange Rates Following Focused ultrasound-Mediated BBB Opening in the Dorsal Striatum: A Diffusion-Prepared pCASL Study*
Dong Liu
Columbia University

0616 *Disease-Specific Brain Function Representation Generation for Diagnosis Using Large Language Models*
Mengjun Liu
Shanghai Jiao Tong University

0753 *Age-Related Alterations in Tissue Microstructure along perforant pathway of Hippocampus and the Tract Template Development*
Yixin Ma
Athinoula A. Martinos Center for Biomedical Imaging, Department of Radiology, Massachusetts General Hospital

0563 *Multi-parametric quantitative MRI of the lower limb muscles in a longitudinal study of limb-girdle muscular dystrophy R9*
Susi Rauh
Institute of Myology

0299 *Hyperpolarized [13C]Bicarbonate Selective CINE: Correlation of Myocardial Metabolism with Rate-Pressure Product During Cardiac Stress*
Mohsen Redda
Aarhus University

0873 *Imaging-based organ-specific aging clock predicts human diseases and mortalities*
Peng Ren
Fudan University

0245 *Bidirectional BOLD-CSF coupling using sagittal BOLD imaging with additional saturation slab for glymphatic function assessment*
Emiel Roefs
Leiden UMC

0375 *The deep topology of glioma*
James Ruffle
UCL Queen Square Institute of Neurology

1250 *Mapping Human Cortical Microstructure In Vivo with Diffusion MRI*
Amir Sadikov
University of California, San Francisco

0680 *MRI-Guided Trans-Perineal Cryoablation in the Treatment of Primary Prostate Cancer: A Prospective Study*
Setayesh Sotoudehnia
Mayo Clinic

0765 *2D fitting improves simultaneous intravoxel incoherent motion (IVIM) and compartmental T2 mapping in the human kidney and liver*
Julia Stabinska
Kennedy Krieger Institute

0499 *Connectome-based growth models reveal individual heterogeneity and neurophysiological subtypes of subthreshold depression*
Xiaoyi Sun
Beijing Normal University

2025 ISMRM AMPC Selected Abstracts

0135 *Revealing membrane integrity in human brain using oscillating-gradient diffusion sequence in two frequency-varying regimes*
Dongsuk Sung
Massachusetts General Hospital and Harvard Medical School

1363 *Field-Correcting GRAPPA (FCG): a generalizable technique to correct spatiotemporal varying odd-even phase errors in EPI, SMS-EPI and 3D-EPI*
Nan Wang
Stanford University

0553 *Biomechanical parameters for predicting response to neoadjuvant chemotherapy and disease-free survival in breast cancer*
Xiaoxia Wang
chongqing university cancer hospital

0624 *TotalSpineSeg: Robust Spine Segmentation and Labeling Across Multiple MRI Contrasts*
Yehuda Warszawer
Sheba Medical Center

0162 *Development of a deep learning system for comprehensive classification of common knee abnormalities from MRI: a large-scale, multi-center study*
Zhuoyao Xie
The Third Affiliated Hospital of Southern Medical University

0116 *Self-supervised motion-compensated reconstruction for cardiac Cine MRI*
Siying Xu
Medical Image and Data Analysis (MIDAS.lab), Department of Diagnostic and Interventional Radiology, University of Tuebingen

1038 *Unveiling Fetal Cortical Folding: Neuroimaging and Genetic Insights*
Xinyi Xu
College of Biomedical Engineering & Instrument Science, Zhejiang University

0385 *Robust Multi-Contrast MR Reconstruction Based on Disentangled Representation Learning-Embedded Deep Unrolling*
Zhihao Xue
National Engineering Research Center of Advanced Magnetic Resonance Technologies for Diagnosis and Therapy, School of Biomedical Engineering, Shanghai Jiao Tong University

0150 *Quantum Dipole Interactions Within Transient Hydrogen Bonds (THB) Define T1 Signal and Anisotropy in Neuronal Tissue. Theory and Validation.*
Dmitriy Yablonskiy
Washington University in St. Louis

4417 *3D High-Resolution Reduced Field-of-View T2-Weighted Imaging by Combining 3D EPI and Spatially Selective Pulses*
Jiayao Yang
University of Michigan

1018 *MR Diffusion Models for Non-invasively Assessing Renal Interstitial Fibrosis and Annual Renal Function Loss in Chronic Kidney Disease*
Guanjie Yuan
Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology

0087 *Biomechanical Study of Adult-type Diffuse Glioma: Insights from MR Elastography on Tumor Molecular Mutations, Blood Supply and Prognosis*
Yu Zeng
Shengjing Hospital of China Medical University

0987 *Radiomic profiling for IDH-mutant astrocytoma stratification with distinct biologic pathway activities*
Chaoli Zhang
The First Affiliated Hospital of Zhengzhou University

1333 *Prostate Diffusion-Weighted Imaging with an Inside-Out Nonlinear Gradient Coil*
Horace Zhang
Yale University

2025 ISMRM AMPC Selected Abstracts

0373 *Pathology-Guided AI System for Accurate Segmentation and Diagnosis of Cervical Spondylosis in MR T2 Images*
Qi Zhang
Shanghai Jiao Tong University

0190 *Influence of microglial activation on neuronal metabolism in Alzheimer's disease: A hybrid 3D-MRSI/PET study*
Yaoyu Zhang
Shanghai Jiao Tong University

0529 *Maturation of marmoset cortical cytoarchitecture from birth to adolescence with ultra-high-resolution diffusion MRI*
Tianjia Zhu
Children's Hospital of Philadelphia