# 2024 ISMRM AMPC Selected Abstracts


0015 *Graph Image Prior for Unsupervised Dynamic MRI Reconstruction*
Zhongsen Li
Tsinghua University

0030 *Relaxation-exchange imaging (REXI) for the measurement of trans-barrier water exchange in choroid plexus*
Xuetao Wu
State Key Laboratory of Brain and Cognitive Science, Beijing MRI Center for Brain Research, Institute of Biophysics, Chinese Academy of Sciences

0041 *Image reconstruction for an 8-element loop-dipole rotating RF coil array (RRFCA) using a novel calibration-free GRAPPA-based method*
Lachlan West
University of Queensland

0110 *Quantifying Cervical Spinal Cord Pathology of Multiple Sclerosis Using Oscillating Gradient Spin-echo DWI*
Sisi Li
Center for Biomedical Imaging Research, Department of Biomedical Engineering, Tsinghua University

0128 *Exploring the sensitivity limits of neuronal current imaging with MRI and MEG in the human brain*
Milena Capiglioni
Institute for Diagnostic and Interventional Neuroradiology, Support Center for Advanced Neuroimaging (SCAN), University of Bern

0139 *Quantitating Neuroanatomic Volumetry and White Matter Hyperintensity Lesion wrapped in AI Model in Aging Cohorts as a determinant of Brain Age*
Neha Yadav
Indian Institute of Science Education and Research Berhampur

0151 *Water/fat separated Echo Planar Time-resolved Imaging (EPTI) for efficient distortion-free multi-contrast imaging*
Zhangxuan Hu
Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital

0160 *Connectomics at 64 mT*
Álvaro Planchuelo-Gómez
Cardiff University

0162 *Prolonged Central Thalamic Intermittent Theta-Burst Stimulation Rescued Memory Deficits in Alzheimer's Disease Mouse Model*
Yi-Chen Lin
National Yang Ming Chiao Tung University

0182 *The first MR Electrical Properties Tomography (MR-EPT) reconstruction challenge: preliminary results of simulated data*
Stefano Mandija
University Medical Center Utrecht

0222 *Mapping oxidative and non-oxidative glucose metabolic rates of entire human brain using quantitative dynamic deuterium MRS imaging at 7T*
Xin Li
University of Minnesota

0239 *NeuroLibre: Living MRI preprints with built-in support for code review*
Agah Karakuzu
NeuroPoly Lab, Polytechnique Montreal

0261 *Predicting Pathogenic DNA Damage Repair Gene Mutations in Prostate Cancer Patients: A Multi-Center MRI Radiomics Study*
Enyu Yuan
West China hospital

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0280 *Accuracy of Measuring Opening and Closing Characteristics of the Aortic Valve with SPEEDI MRI*
Qingfei Luo
University of Illinois at Chicago

0308 *Brain iron accumulation kinetics in Parkinson's disease revealed by relaxometry network and susceptibility-weighted imaging*
Weizhao Lu
Xuanwu Hospital, Capital Medical University

0389 *Integrating scout and guidance line-based retrospective motion correction into a 3D deep learning reconstruction for fast and robust brain MRI*
Daniel Polak
Siemens Healthineers

0414 *NORMAL APPEARING BREAST TISSUE ON BREAST MRI HAS ALTERED CHEMISTRY CONSISTENT WITH "SWITCHED-ON" STATES IN WOMEN WITH INVASIVE CARCINOMA*
Carolyn Mountford
Griffith University

0416 *MRI advancement and research in Africa: Report on the Inaugural ISMRM African Chapter conference*
Johnes Obungoloch
Mbarara University of Science and Technology, Mbarara, Uganda

0425 *Spiral T1w-Dixon-VIBE for high resolution abdominal imaging at 0.55T*
Bilal Tasdelen
University of Southern California

0447 *Super-paramagnetic iron oxide nanoparticles improve liver tumor visualization throughout online MRI-guided liver stereotactic radiotherapy*
Danny Lee
Allegheny Health Network

0504 *High-Resolution Sodium MRI of Human Gliomas at 3T Using Physics-Based Generative AI*
Catalina Raymond
UCLA Brain Tumor Imaging Laboratory

0516 *Fine-Tuning Deep Learning Model For Quantitative Knee Joint Mapping with MR Fingerprinting*
Xiaoxia Zhang
Bernard and Irene Schwartz Center for Biomedical Imaging, Department of Radiology, New York University Grossman School of Medicine

0530 *Single-pulse optogenetic perturbation of thalamo-cortical networks reveals functional architecture of rsfMRI networks*
Linshan Xie
The University of Hong Kong

0541 *Automated Quality Control for Multi-Vendor, Multi-Centre Renal Imaging Studies*
Alexander Daniel
University of Nottingham

0624 *MRI2Qmap: compressed-sampled multiparametric quantitative MRI reconstruction using learned spatial priors from multimodal MRI datasets*
Mohammad Golbabaee
University of Bristol

0649 *Histology-informed biophysical diffusion MRI model selection for enhanced liver cancer immunotherapy assessment*
Francesco Grussu
Vall d'Hebron Institute of Oncology, Vall d'Hebron Barcelona Hospital Campus

0653 *Peer-to-Peer Generative Learning for Architecture-Agnostic Federated MRI Reconstruction*
Valiyeh Ansarian Nezhad
Bilkent University

0655 *Accelerating DT-CMR with Deep Learning-based Tensor De-noising and Breath Hold Reduction*
Michael Tanzer
Imperial College London

0670 *Development of a Compact Head-only Scanner with a Window and Shoulders Outside its Vertical Bore.*
Taylor Froelich
University of Minnesota

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0690 *Are we validating enough our MRI markers? Cell-specific challenges to dissect the neurobiology of microstructural MRI*
Antonio Cerdán Cerdá
CSIC-UMH

0749 *Dynamic Mode Decomposition (DMD) Cardiac Phase Estimation for adult and fetal real-time MRI*
Ecrin Yagiz
University of Southern California

0770 *Sigma-1 receptor changes in chronic knee pain using PET/MRI: Preliminary results of fifteen patients*
Rianne van der Heijden
University of Wisconsin-Madison

0786 *Built-in RF safety for active implants: Harnessing impedance measurements from a commercial deep brain stimulator*
Berk Silemek
Physikalisch-Technische Bundesanstalt (PTB)

0806 *Diffusion Modeling with Unrolled Transformers for Self-Supervised MRI Reconstruction*
Tolga Cukur
Bilkent University

0815 *Retrospective Motion Correction for Fetal 4D Flow MRI*
Reagan Tompkins
Amsterdam University Medical Center

0892 *Decoding directionality of information in cortical networks using layer-based connective field model*
Joana Carvalho
Champalimaud Foundation

0895 *Motor unit magnetic resonance imaging to assess muscle twitch dynamics in mitochondrial disease after an exercise programme.*
Matthew Birkbeck
Newcastle University

0904 *Connectome 2.0: Performance evaluation and initial in vivo human brain diffusion MRI results*
Gabriel Ramos-Llordén
Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital and Harvard Medical School

0914 *Improved Hepatocellular Carcinoma Targeted Combination Immunotherapy Using a Nanocarrier: Monitoring Tumor Response via Functional MRI*
Jiamin Li
The Second Affiliated Hospital, School of Medicine, South China University of Technology

0930 *3D whole brain mapping of creatine kinase metabolic rate using 31P-MR fingerprinting.*
Mark Widmaier
CIBM Center for Biomedical Imaging, École polytechnique fédérale de Lausanne (EPFL)

0932 *Revealing membrane integrity and cell size from diffusion kurtosis time-dependence*
Hong-Hsi Lee
Massachusetts General Hospital

1008 *MR-Transformer: Vision Transformers for Total Knee Replacement Prediction using Magnetic Resonance Imaging*
Chaojie Zhang
New York University Grossman School of Medicine

1010 *PRIME: Phase Reversed Interleaved Multi-Echo acquisition enables highly accelerated distortion-free diffusion MRI*
Yohan Jun
Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital

1029 *A Rapid Deep Learning Approach to Parcellate 280 Anatomical Regions to Cover the Whole Brain*
Kei Nishimaki
The Johns Hopkins University School of Medicine

1048 *In vivo assessment of astrocyte reactivity in patients with progressive supranuclear palsy*
Kosei Hirata
National Institutes for Quantum Science and Technology

1057 *High-resolution mapping of hand innervation: novel approaches at 7T MRI*
Pauline Guillemin
University of Geneva

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1069 *Accelerating Longitudinal Dynamic MRI by Exploiting Multi-Session Temporal Correlations*
Jingjia Chen
New York University Grossman School of Medicine

1088 *Rapid and simplified post-processing for B0 and B1 mapping with WASABI-RADISH in the application of CEST at 7T*
Mara Quach
University of Melbourne

1126 *Mapping glymphatic solute transportation through the perivascular space of hippocampal arterioles with 14 Tesla MRI*
Xiaoqing Zhou
A.A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital

1134 *Estimating microscopy-informed fibre orientations from in-vivo dMRI using a domain adaptation adversarial network*
Silei Zhu
University of Oxford

1143 *Gradient-Free Frequency Encoded MRI*
Sai Abitha Srinivas
Case Western Reserve University

1153 *Cellular signatures of microstructural development in the human cerebral cortex*
Sila Genc
The Royal Children's Hospital

1161 *The causal effect of screen uses versus reading on the brain development in early adolescents*
Mingyang Li
Zhejiang University

1162 *Multi-Omics Integration of MRI Habitat, Pathology, and Clinical Parameters for Predicting Platinum Resistance of HGSOC*
Qiu Bi
the First People's Hospital of Yunnan Province

1172 *Phase-Specific Spatiotemporal Fractal Analysis and Radiomics of Free-breathing Stress Myocardial Perfusion*
Changyu Sun
University of Missouri Columbia

1179 *Accelerated Method for Joint Fatty Acid Composition and T1 (FACT) Mapping of Epicardial Adipose Tissue in Mice at 9.4 T*
Julia Bresticker
University of Virginia

1231 *Deep learning-based automated scan planning for brain MRI*
Gaojie Zhu
Center for Biomedical Imaging Research

1240 *Cognition-related connectome gradient dysfunctions of thalamus and basal ganglia in drug-naïve first-episode major depressive disorder*
Qian Zhang
Huaxi MR Research Center (HMRRC), Department of Radiology, West China Hospital of Sichuan University

1242 *Brain connectomic and transcriptional signatures of suicidal thoughts and behaviors in major depressive disorder*
Kun Qin
Taihe Hospital, Hubei University of Medicine

1263 *MULti-TImepoint VElocity-selective Reconciled with Spatially-sElective (MULTIVERSE) ASL: Pushing the Limit of Arterial Transit Time*
Feng Xu
Johns Hopkins University

1277 *Dynamic 3D Thermometry in Moving Tissue using Accelerated Stack-of-Radial MRI and an Image-Navigated Multi-Baseline PRF Method*
Qing Dai
University of California, Los Aneles

1289 *EPTIMA: Echo Planar Time-resolved Imaging derived Millisecond-scale temporal resolution Acquisition*
Zijing Dong
Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital

1327 *Simultaneous EEG-fMRI at 7T with adapted EEG leads and reference sensors for high-quality, high-resolution imaging: human evaluation*
Cristina Sainz Martinez
CSEM - Swiss Center for Electronics and Microtechnology

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1369 *A Positive and Negative Learning based Image Decomposition Network for Phase Unwrapping and Background Removal*
Lijun Bao
Xiamen University

1376 *A quantitative 2D time-of-flight (qTOF) MR angiography technique for measuring single-vessel blood flow and diameter*
Yuhan Ma
Carleton University

1383 *In vivo mapping of the intra-cortical vasculature and layer-specific changes in Δχ and ΔR2* of human cerebral cortex using USPIO-MRI at 7T*
Chenyang Li
New York University Grossman School of Medicine

1390 *T1 Mapping and Extracellular Volume Fraction in Patients with Suspected Acute Myocarditis: A Prognosis Study*
Yining Wang
Fuwai Hospital, Peking Union Medical College, Chinese Academy of Medical Sciences

1400 *Predicting Anatomical Tumor Growth in Pediatric High-grade Gliomas via Denoising Diffusion Models*
Daria Laslo
ETH Zurich

1885 *Myelin-sensitive inversion recovery (MySIR) for quantification of myelin in the peripheral nerve*
Takayuki Sada
Chiba University Hospital

2458 *Subvoxel QSM of human knee cartilage: a preliminary study*
Ming Zhang
School of Biomedical Engineering, Shanghai Jiao Tong University

2914 *Phase-Resolved Functional Lung MRI Reveals Perfusion Abnormalities in Postacute COVID-19 Syndrome*
Tao Ouyang
Department of Radiology, Beijing Chaoyang Hospital, Capital Medical University, Beijing 100020, China