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ISMRM JOINT WORKSHOP OF THE
Ultra-High Field MR & Brain Function Study Groups

30 March-02 April 2025

Graduate by Hilton Annapolis
Annapolis, MD, USA

Abstract Submission Deadline: 10 January 2025 | 23:59 UTC

OVERVIEW

This workshop is jointly organized by the Brain Function Study Group and the High-Field MR Study Group. High field human MR technologies have been rapidly developing and have started to make inroads into clinical applications. Such advancement has been driven by the continuous pursuit of higher MR sensitivity and spatial resolution of MR images. This is particularly the case for brain function research. Advanced functional MRI approaches have been developed on high field, which allows the detection of neuronal activities at the mesoscopic spatial regime of cortical layers. On the other hand, large-scale and multimodal fMRI studies are being conducted at all field strengths, providing important insights into brain function and its relationship with demographics, physiology and disease. This interplay between brain function research and high field MR technology keeps driving both fields forward, which forms the basis of this joint workshop.

The joint workshop will adopt a two-and-a-half-day format, consisting of parallel sessions from both Study Groups on the first and third (half) day, and joint sessions on the second day. In the parallel sessions, state-of-the-art technologies and applications in each field will be presented, which include fMRI across different field strengths and high field MR in other body parts. In the joint sessions, the focus will be high resolution functional MRI and its applications in basic and clinical neuroscience. We will make efforts to include some educational talks in the joint sessions to accommodate attendees from both study groups. In addition to invited talks and proffered oral presentations, ample time will be provided for live discussions and interactions.

TARGET AUDIENCE

MR physicists, neuroscientists, and clinicians who are interested in brain function research, functional MRI approaches, high-field MR technology/methods and their applications in basic and clinical studies.

EDUCATIONAL OBJECTIVES

Upon completion of this activity, participants should be able to:

- Describe advanced high resolution fMRI approaches developed on high-field;
- Describe various contrast mechanisms underlying fMRI acquisition and post-processing strategies;
- Describe the main challenges of high field MR technologies and recent advances in methods to address them; and
- Describe the potential of fMRI approaches at different field strengths in both basic and clinical neuroscience.

ORGANIZING COMMITTEE

Ultra-High Field Co-Chairs: Marta Bianciardi, Ph.D. & Jun Hua, Ph.D.

Ultra-High Field Organizing Committee: Andrew Fagan, Ph.D.; Maxime Guye, M.D., Ph.D.; Shaihan Malik, Ph.D.; Erik Middlebrooks, M.D.; Xingfeng Shao, Ph.D.; Esther Steijvers-Peeters, B.Sc.; Sydney N. Williams, Ph.D.

Brain Function Co-Chairs: Patricia Figueiredo, D. Phil.; Laurentius Huber, Ph.D.

Brain Function Organizing Committee: César Caballero Gaudes, Ph.D.; Audrey Fan, Ph.D.; David A. Feinberg, M.D., Ph.D.; Aneurin James Kennerley, Ph.D.; Wietske van der Zwaag, Ph.D.

Learn more & REGISTER!

For more information including housing & registration, please visit: www.ismrm.org or call + 1 510 841 1899.