

ISMRM WORKSHOP ON

Moving Forward with Intravoxel Incoherent Motion Modeling for Diffusion-Weighted MRI: An Attempt at Consensus

Abstract Submission Deadline: 01 December 2023 | 23:59 UTC



26-28 March 2024



Friedrich-Alexander-Universität Erlangen-Nürnberg Erlangen, Germany



OVERVIEW

Intravoxel incoherent motion (IVIM) imaging provides a means for non-invasive simultaneous assessment of tissue water diffusion and perfusion characteristics by MRI without the need for an exogenous contrast agent. There is growing literature on IVIM supporting its value, with an exponential increase in the number of publications in the last decade. However, published results are to some extent contradicting, possibly due to methodological variations, thereby hindering the clinical adoption of the technique.

This workshop aims to bring together scientists and clinicians interested in IVIM to start the move towards consensus on the clinical and research use of IVIM. The workshop will include lectures, scientific presentations (orals and posters), and panel and roundtable discussions. Topics will span from the basics of the IVIM technique to common application in various body regions, to state-of-the-art methods for acquisition and processing, to validation and quality control, to future clinical applications, and novel developments such as flow-compensated IVIM. A significant portion of the workshop will be dedicated to activities aiming to facilitate starting the work on consensus—in particular, sessions enabling discussions in both larger and smaller groups.

EDUCATIONAL OBJECTIVES

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

- Review the fundamentals of IVIM imaging, from theory to acquisition to processing to clinical implementation;
- Describe the latest advances and insights in IVIM imaging;
- Examine what diseases and disease sites are low-hanging fruit for IVIM:
- · Apply the use of IVIM in future research studies; and
- Collaborate on the formation of IVIM guidelines and consensus statement.

TARGET AUDIENCE

The main topic is intravoxel incoherent motion (IVIM), and the workshop caters to those interested in IVIM. This workshop is designed for researchers (including Ph.D. candidates, postdocs, and professors), clinicians (e.g. radiologists), MR technologists, government regulatory experts, nonprofit and academic groups interested in IVIM, and members of the ISMRM Diffusion, ISMRM Perfusion and ISMRM Quantitative MR Study Groups.

ORGANIZING COMMITTEE

Committee Chair: Oliver J. Gurney-Champion, Ph.D.
Committee: Christian Federau, M.D.; Mami Iima, M.D., Ph.D.; Oscar Jalnefjord, Ph.D.;
Jacobus F. A. Jansen, Ph.D.; Frederik Bernd Laun, Dr. rer. nat.; Denis Le Bihan, M.D., Ph.D.;
Eric E. Sigmund; Andreas Wetscherek, Ph.D.; Dan Wu, Ph.D.; Susi Rauh, M.Sc. (Trainee Observer)



