OVERVIEW

Quantitative MRI (qMRI) methods hold the promise of improved diagnosis and monitoring of white matter disorders. Despite great advances in the development of sophisticated qMRI methods, their translation into clinic is still in its infancy. This workshop will review state-of-the-art qMRI methods, technical aspects and clinical applications, and focus on bridging the gap between research and clinical implementation.

Reproducible research facilitates clinical translation and will be promoted throughout this workshop, which is organized by the White Matter Study Group with strong input from the Reproducible Research Study Group. By joining forces, we will create an interdisciplinary environment where plenary lectures will be supplemented by hands-on tutorials and collaborative project ideas.

EDUCATIONAL OBJECTIVES

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

• Review the fundamentals of qMRI methods in white matter: acquisition, analysis and applications;
• Recognize the current limitations in qMRI methods in white matter, both from the standpoint of physical limits and obstacles to clinical translation;
• Explore both the established and the more recent developments in qMRI methods of white matter for use in the clinical applications; and
• Develop their own view on the common vision for the future of qMRI methods and its translation to everyday clinical practice.

TARGET AUDIENCE

This workshop is designed for researchers (including Ph.D. students and postdocs); clinicians (e.g., neurologists, radiologists, neurosurgeons); trainees; MR technologists; government regulatory experts; nonprofit and academic groups interested in quantitative and reproducible MRI methods of white matter; and members of the White Matter Study Group. It will also be of particular interest to members of the Reproducible Research Study Group.

ORGANIZING COMMITTEE

Committee Co-Chairs: Els Fieremans, Ph.D. & Shannon Kolind, Ph.D.
Committee: Cristina Granziera, M.D., Ph.D.; Seth A. Smith, Ph.D.; Nikola A. Stikov, Ph.D.; Susan T. Francis, Ph.D.; Marios C. Yiannakas, Ph.D.; Simon Lévy, Ph.D. (Trainee Observer)

This workshop offers CME.