

Quantitative MRI for characterising brain tissue

February 6 – 8, 2023

Leipzig/DE

Local organisers

Luke Edwards • Dimitrios Gkotsoulas • Evgeniya Kirilina • Veronika Krieghoff • Harald Möller • Angela Mühlberg • Nancy Muschall • André Pampel • Aline Peter • Jochen Schmidt • Nikolaus Weiskopf

Faculty

Martina Callaghan • Mara Cercignani • Sune Jespersen • Evgeniya Kirilina • José Marques • Aviv Mezer • Harald Möller • Markus Morawski • Nicole Seiberlich • Nikolaus Weiskopf

PROGRAMME

Monday, February 6

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| 9:00- 9:15 | Welcome | Harald Möller |
| 9:15-10:15 | Quantification of the longitudinal relaxation time, T_1 | Nikolaus Weiskopf Leipzig |
| 10:15-10:45 | Coffee break | |
| 10:45-11:45 | Quantification of proton density, PD | Aviv Mezer Jerusalem |
| 11:45-12:45 | Quantification of magnetization transfer (MT) | Mara Cercignani Cardiff |
| 12:45-13:45 | Lunch | |
| 14:00-15:30 | Exercises I—Mapping of T_1 and PD | Aviv Mezer, Nikolaus Weiskopf, Jochen Schmidt, |
| 15:30-16:00 | Coffee break | |
| 16:00-17:30 | Exercises II—Simulation of MT effects in arbitrary pulse sequences | André Pampel, Harald Möller |
| 18:30-21:00 | Welcome reception | |

Tuesday, February 7

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| 9:00-10:00 | Quantification of the transverse relaxation time, T_2, and the effective transverse relaxation time, T_2^* | Evgeniya Kirilina Leipzig |
| 10:00-10:30 | Coffee break | |
| 10:30-11:30 | Quantification of magnetic susceptibility, χ | José Marques Nijmegen |
| 11:30-12:30 | Fingerprinting for quantitative MRI | Nicole Seiberlich Ann Arbor |
| 12:30-13:30 | Lunch | |
| 13:30-14:30 | Advanced processing of quantitative MRI data | Martina Callaghan London |
| 14:30-16:00 | Exercises III—Gradient echo magnitude & phase | José Marques, Dimitrios Gkotsoulas |
| 16:00-16:30 | Coffee break | |
| 16:30-18:00 | Exercises IV—Multi-parametric mapping & voxel-based quantitation | Martina Callaghan, Luke Edwards |
| 19:30-22:00 | Speakers Dinner | |

Wednesday, February 8

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| 8:30- 9:30 | Diffusion-weighted imaging (DWI): Acquisition aspects and biophysical models | Sune Jespersen Aarhus |
| 9:30-10:30 | Biophysical models and interpretation of quantitative relaxation data | Harald Möller Leipzig |
| 10:30-11:00 | Coffee break | |
| 11:00-12:00 | Verification of qMRI measures | Markus Morawski Leipzig |
| 12:00-12:45 | General discussion | |
| 12:45-13:00 | Wrap-up & adjourn | Nikolaus Weiskopf |
| 13:15-15:00 | INSPIRE-MED Lunch Symposium | |