

## A Hands-on Course on Core Concepts, Protocol and Sequence Design in Magnetic Resonance Imaging (MRI)

### Agenda: Wednesday, 16th July to Friday, 18th July 2025

#### Day 1

09:30 – 10:00 | Welcome and Introductions

10:00 – 11:00 | Session 1: Basic of MRI - Core Concepts & Theory

11:00 – 11:15 | Morning Coffee Break + Tec-Check

11:15 – 12:45 | Session 2: Intro and Live Demo MR Teaching Tool

12:45 - 13:00 | Introduction to Session 3

13:00 – 14:00 | Lunch Break

14:00 – 16:00 | Session 3: Decentral hands-on with MR Teaching Tool

→ *Please team up in groups of 2-4 persons and explore the MR Teaching Tool.*

*Task: Please, try to simulate a "real world" problem, e.g. you have the task to develop a sequence/protocol for a specific case. How can you make use of the tool and how can you improve your experimental setup with simulations?*

*Ideas needed?*

*- Take the demo image and try to reproduce it with the MRI Teaching Tool.*

*We ask you to present a very short team story later on in Session 4 to collect feedback (so please take some screenshots and/or notes).*

15:30– 16:00 | Afternoon Coffee Break in parallel to Session 3

16:00- 17:00 | Session 4: Team Stories & Feedback

#### Day 2

09:30 – 10:00 | Welcome and Introduction

10:00 – 10:45 | Session 1: Three selected topics presented by attendees (1x FME, 2x BU)

10:45 – 11:00 | Brief intro to SPAMM (Spatial Modulation of Magnetization)

11:00 – 12:00 | Session 2: Hands-on SPAMM with MR Teaching Tool

12:00 - 13:00 | Lunch Break

13:00 – 13:45 | Session 3: Introduction to MRI Artefacts

from 14:00 | Session 4: gammaSTAR Introduction & interactive Session

15:30 - 16:00 | Coffee Break in parallel to Session 4

~16:30 | End

### Day 3

09:00 – 09:15 | Welcome, introductions and organization of subgroups

09:15 – 12:00 | Parallel sessions / work groups (*you may also change in between*)

- 1) MRI visit
- 2) Table-top interactive session with gammaSTAR
- 3) Post processing with Python
- 4) No-field MRIs

12:00 – 13:00 | Lunch Break

13:00 – 14:00 | Summary and closing

##### END #####

subject to change