

# OPEN-SOURCE MRI SEQUENCE PROGRAMMING WORKSHOP

## PROGRAM

### Day 1 - Wednesday, September 24th, 2025

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|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:45–9:00   | Registration, Coffee, and Croissants (In front of 02.214)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 9:00–10:00  | <p>Welcoming (02.214)</p> <ul style="list-style-type: none"> <li>– Welcome by Jessica Bastiaansen &amp; Piotr Radojewski</li> <li>– Introduction of all participants</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                      |
| 10:00–11:00 | <p>Pulseq Introduction Part I (02.214) - Moderated by Eva Peper</p> <ul style="list-style-type: none"> <li>– <b><i>'What is Pulseq: Insider perspective and how to use it'</i></b></li> </ul> <p>by Mojtaba Shafiekhani</p> <ul style="list-style-type: none"> <li>– <b><i>'How to get started on a Pulseq project'</i></b></li> </ul> <p>by Andreia Gaspar</p>                                                                                                                                                                                                      |
| 11:00–12:00 | <p>My Experience With Pulseq (02.214) - Moderated by Milena Capiglioni</p> <ul style="list-style-type: none"> <li>– Marta Maggioni, University of Basel, Switzerland</li> <li>– Ritika Khot, Cardiff University, UK</li> <li>– Martin Nicoletti, University of Lausanne, Switzerland</li> <li>– Valentin Jost, Heidelberg University, Germany</li> </ul> <p>Discussion</p>                                                                                                                                                                                           |
| 12:00–13:00 | Group Photo and Lunch Break (lunch not provided)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 13:00–15:30 | <p>Pulseq Introduction Part II (02.214) - Moderated by Joseph Woods</p> <ul style="list-style-type: none"> <li>– <b><i>'Pulseq step-by-step sequence implementation'</i></b></li> </ul> <p>Tutorial by Rita Nunes and Andreia Gaspar</p> <ul style="list-style-type: none"> <li>– <b><i>'New Pulseq features and live demo'</i></b></li> </ul> <p>Talk by Maxim Zaitsev and Mojtaba Shafiekhani</p> <ul style="list-style-type: none"> <li>– <b><i>'Image reconstruction of Pulseq data'</i></b></li> </ul> <p>Tutorial by Maxim Zaitsev and Mojtaba Shafiekhani</p> |
| 15:30–16:00 | Break                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 16:00–17:30 | <p>TIC Seminar (Felix Frey Auditorium, ground floor)</p> <p>16:00 – <b><i>'Open source MRI: Pulseq, patents, and collaboration strategies'</i></b></p> <p>Talk by Maxim Zaitsev</p> <p>16:45 – <b><i>'Open-MOLLI: unlocking cardiac MR T1-mapping with Pulseq'</i></b></p> <p>Talk by Rita Nunes</p>                                                                                                                                                                                                                                                                 |
| 17:30–18:00 | Apéro                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Day 2 – Thursday, September 25th, 2025

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|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:45–9:00   | Coffee and Croissants (02.214)                                                                                                                                                                                                                                                             |
| 9:00–10:00  | Introduction and Group Check-Ins (02.214)<br>– Welcome by Jessica Bastiaansen<br>– <b><i>‘Debugging Pulseseq sequences with IDEA’</i></b><br>Live demo by Maxim Zaitsev<br>– Introduction to group work by Eva Peper<br>– Project pitches by Milena Capiglioni and Joseph Woods<br>– Break |
| 10:00–11:00 | Group formation (02.214 & breakout rooms)<br>A) Tutorial Track (beginners)<br>B) Group Project Track (intermediate and advanced)<br>C) Own Project Track                                                                                                                                   |
| 11:00–12:00 | Time to Code, Debug and Scan (02.214 & breakout rooms)                                                                                                                                                                                                                                     |
| 12:10–13:00 | Lunch Break (lunch not provided)                                                                                                                                                                                                                                                           |
| 13:00–16:00 | Time to Code or Scan (02.214 & breakout rooms)                                                                                                                                                                                                                                             |
| 16:00–18:00 | Outdoor activity<br>– A guided tour organized by the PhD students in Bern                                                                                                                                                                                                                  |

## Day 3 – Friday, September 26th, 2025

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|-------------|----------------------------------------------------------------------------------------------------------|
| 8:45–9:00   | Coffee and Croissants (02.214)                                                                           |
| 9:00–10:00  | Introduction and Group Check-Ins (02.214 )<br>– Welcome by Jessica Bastiaansen<br>– Check in with tutors |
| 10:00–12:00 | Final Hands-on Coding and Scanning (02.214 & breakout rooms)                                             |
| 12:10–13:00 | Lunch Break (lunch not provided)                                                                         |
| 13:00–15:45 | Scanning, Reconstruction and Presentation Preparation (02.214)                                           |
| 16:00–17:30 | Presentations of Group Work (02.214)                                                                     |
| 17:30       | Departure                                                                                                |

## General information

The event takes place at the Swiss Institute for Translational and Entrepreneurial Medicine (sitem-insel). When arriving by train at Bern main station, it is a short walk or bus ride with line 101 or 12, exit Inselplatz.

### Address

Freiburgstrasse 3  
3010 Bern  
Switzerland



## Organizing committee

Milena Capiglionni

Eva Peper

Joseph Woods

Jessica Bastiaansen

Piotr Radojewski