

School of Engineering Schol of Basic Sciences Laboratory of Magnetic Resonance Imaging Systems and Methods - MRISM

Multiple PhD Positions in Magnetic Resonance Imaging Methodology

We are offering multiple PhD positions as a full-time (100%) PhD Student at the School of Engineering and at the School of Basic Sciences at the École Polytechnique Fédérale de Lausanne (EPFL), Lausanne. Our newly established Laboratory of Magnetic Resonance Imaging Systems and Methods (MRISM) develops novel MRI instrumentation, data acquisition, image reconstruction and signal modelling methods to address technical challenges in modern medical imaging diagnostics and to explore novel research questions in health and disease. The offered PhD positions are part of the establishment of the new MRISM laboratory at EPFL.

- 1. The first PhD student position at the EPFL School of Engineering focuses on the development of data acquisition and image reconstruction methods for ultra-short echo time magnetic resonance imaging targeting primarily musculoskeletal imaging applications, in close collaboration with local clinical and industry collaborators. [EPFL Careers link-STI]
- 2. The second PhD student position at the EPFL School of Engineering focuses on the development of data acquisition, image reconstruction methods and signal modelling approaches for diffusion-weighted magnetic resonance imaging targeting primarily diagnostic imaging in body oncology, in close collaboration with local signal processing experts, clinical and industry collaborators. [EPFL Careers link–STI]
- 3. The first PhD position at the EPFL School of Basic Sciences position focuses on the development of instrumentation, data acquisition and image reconstruction methods for ultralow field MRI (below 0.1 T) targeting primarily body and musculoskeletal imaging applications, in close collaboration with imaging hardware experts. [EPFL Careers link—SB]
- 4. The second PhD position at the EPFL School of Basic Sciences position focuses on the development of data acquisition and image reconstruction methods for water-fat imaging and fat quantification targeting primarily abdominal and musculoskeletal imaging applications at the clinical field strengths (0.55 7T), in close collaboration with local clinical and industry collaborators. [EPFL Careers link–SB]

If interested, check the main duties and responsibilities and the desired profile under the above links. Only applications submitted through the online EPFL Careers platform are considered.

Note: The selection process involves multiple stages, and short-listed candidates will be requested to apply to a specific EPFL Doctoral Program to qualify for a PhD at EPFL, i.e. Electrical Engineering Doctoral Program (EDEE), Physics Doctoral Program (EDPY) or Biotechnology and Bioengineering Doctoral Program (EDBB). Please check the above links for additional information on admission. Please note that this is a separate application process necessary to be eligible to complete your PhD at EPFL.

If you have any questions, please feel free to contact Prof. Dimitrios Karampinos (dimitrios.karampinos@epfl.ch). No applications sent to this address shall be considered.

Application deadline: The positions will remain open until filled

Contract Start Date: As soon as possible