University of Basel
Department of Biomedical Engineering

Seminar Series:
Latest Breakthroughs in Biomedical Engineering Research

Location: DBE Science Lounge, Hegenheimermattweg 167C, 4123 Allschwil
Date & Time: Thursday 20.02.2025 | 16:30 – 17:30
Host: Dr. Claudia Lenz

Can we use quantitative MRI to measure iron and myelin in the brain?

Christoph Birkl

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Abstract

This talk will focus on quantitative MRI methods to study the brain's microstructure. It will cover the development and validation of quantitative methods and highlight some applications in neurological disorders. One major aspect, will be the counteracting effects of different tissue components, such as iron and myelin, on quantitative MRI parameters. The talk will span from basic science to clinical application.

Biosketch

Christoph Birkl is assistant professor for computational radiology at the Medical University of Innsbruck. His research focus on the development, validation and application of quantitative MRI techniques for measuring iron and myelin in the brain. In 2017, he received the Erwin Schrödinger Fellowship of the Austrian Science Fund to work as a postdoctoral fellow at the MRI science lab of the University of British Columbia in Vancouver, Canada. He received his PhD in Biomedical Engineering from the Graz University of Technology and worked as PhD student and later on postdoctoral researcher in the Neuroimaging Research Group at the Medical University of Graz.