State-of-the-Art in Magnetic Resonance:

Methods and Clinical Applications

International lecture series organized by the Translational Imaging Center @ sitem-insel in Bern on recent progress and current applications of MR imaging and spectroscopy at standard and ultrahigh fields

Engineering solutions towards robust, ultra-high field Structural & Metabolic MRI

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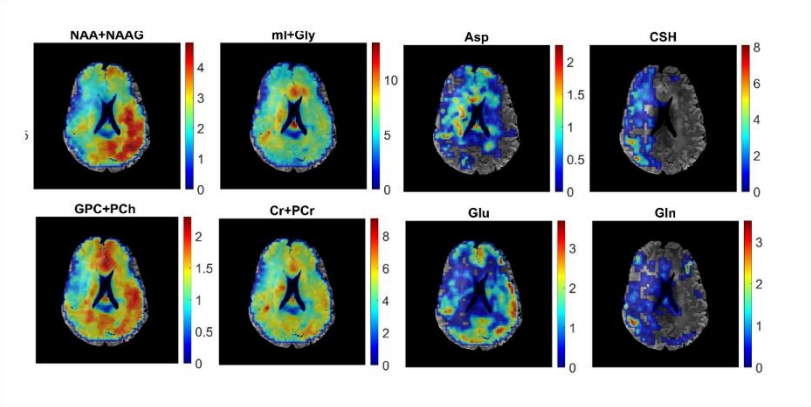
The seminar will highlight recent advances in engineering solutions that enable robust structural and metabolic MRI at ultra-high magnetic fields. Particular emphasis will be placed on technical innovations that address long-standing challenges of ultra-high field imaging, including the development of dedicated RF coil technology, B0 shimming strategies, and parallel transmission approaches, with a focus on outcomes from our recent BOGA development. On the metabolic imaging side, progress in advanced spectroscopic methods will be discussed, including proton (^{1}H) MRSI, deuterium (^{2}H) MRSI, carbon (^{13}C) MRSI, and chemical exchange saturation transfer (CEST) techniques. These developments provide new opportunities for probing tissue metabolism with unprecedented sensitivity and spatial resolution. Finally, results from an ongoing 7T clinical brain tumor trial will be presented, illustrating the translational potential of ultra-high field MRI for both structural and metabolic imaging in a clinical setting.

Wednesday, September 10 2025, 16:00



The lecture will be held as an **in-person meeting** at Sitem-insel Auditorium E0.211 (ground floor, Felix Frey Auditorium) Freiburgstrasse 3, Bern, followed by an Apéro to continue discussions and networking

and in addition **broadcast via Zoom** at
https://unibe-ch.zoom.us/j/66256483922?pwd=aE1kTFg5aUZza1JmWEJxZDVsdnV5dz09.

Please feel free to spread the word to anyone interested

For further info contact jessica.bastiaansen@unibe.ch
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