MEDIZINISCHE UNIVERSITÄT WIEN

TU WIEN TECHNISCHE UNIVERSITÄT WIEN

Invitation to the seminar on

Medical Radiation Physics and Ion-Beam Therapy

by

Julia Pfitzer
Institute of Biomedical Imaging, TU Graz

An Open-Source Ultra-Low-Field MRI System and its First Investigation in an Ion-Beam Treatment Room

MRI is a powerful diagnostic tool known for its high soft tissue contrast and functional imaging capabilities. However, conventional MRI is limited by substantial burdens, namely high acquisition and operating costs, infrastructure requirements for magnetic shielding and cooling.

In response to these limitation mobile ultra-low-field MRI systems received renewed attention due to their promising applications in point-of-care imaging and lower system requirements.

The OSI² ONE is an MRI scanner whose hardware, software and system characterization is open source, such that the system can be rebuilt by others and independently verified. We present our experience in constructing and operating the OSI² ONE system at TU Graz, as well as the first implementation of an ULF MRI within an ion-beam treatment room at MedAustron.

Tuesday, 17. November 2026, 09:00 am

Zoom:
https://tuwien.zoom.us/j/69660150906?pwd=FQRS8TnWx4hGuNEqjmVLfYostoOXLW.1

For updates, please register at: https://list.tuwien.ac.at/sympa/info/medaustron-seminar

Full programme and infos: https://indico.global/category/1500/

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