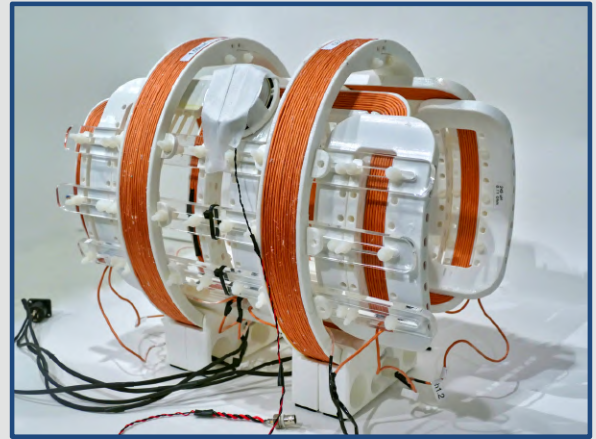


openMPI



human-sized
Magnetic Particle Imaging

humansized. fast. portable.

- rapid 2D projection imaging of large samples
(up to 10 frames/s)
- lightweight scanner design
(portable)
- large bore size
(up to 30 cm)
- innovative encoding scheme
(fully electrical Field-Free Line)
- real-time data processing
and visualization

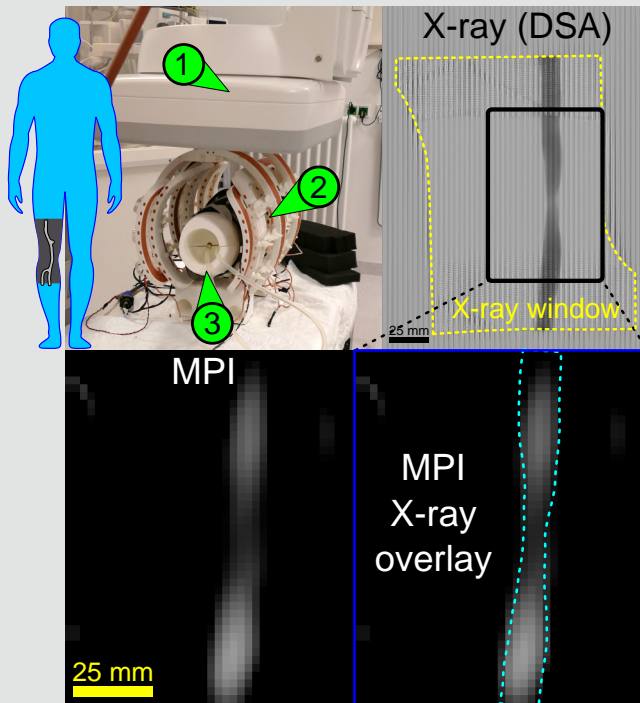


Go large: The openMPI system is the first of its kind. Its lightweight design offers new ways for integrating the MPI technology into established environment and elaborating new parameters for your application. Our dedicated OctoView software helps you to enhance your research experience.



Applications

openMPI meets X-ray



The openMPI scanner (3) within an X-ray system (1) in an angio lab shows first iMPI X-ray bolus tracking using a Perimag® and iodinated contrast media mixture.

The images show simultaneous real-time visualization of the bolus through an artificial vascular stenosis in a human-size knee model.



Device specs

	openMPI ¹⁾
Innovative coil design	yes (dLGA gen2.5)
Bore size	250 mm (horizontal)
Gradient strength	adjustable to 0.4 T/m
Encoding scheme	2D FFL
Field of View	150 mm diameter 200 mm length projection imaging
Drive field strength	adjustable to 20 mT
Frequencies	f1/f2: fixed (<2.5 kHz)
Sequences	MPS, 2D
Current controlled	no
Temperature stabilized	no
Cooling	passive
Active Feedthrough Correction (AFC)	no (passive filtering)
Fast scanning mode	yes (up to 10 volumes/s)
Smart Frequency Selection (SFS)	no
Modular lightweight design	yes 1x drive (benchtop) 1x MPI unit (15 kg) + periphery parts (portable) 1x dedicated amplifier rack (wheeled)
Open Matlab interface	yes

¹⁾ The openMPI design allows adjustable parameters for specific questioning. The indicated list describes the research setup.

