

Postdoctoral Researcher

Advanced Low-Field Magnetic Resonance Imaging (LF-MRI)

Univ.-Prof. Dr.-Ing. Volkmar Schulz
Head of Institute

Dr. rer. nat. Yannick Kuhl
Group Leader Low-Field MR Systems

Chair of Imaging and Computer Vision
Kopernikusstr. 16
52074 Aachen, Germany

application@lfb.rwth-aachen.de

We are seeking a Postdoctoral Researcher to expand our Low-Field Magnetic Resonance Imaging (LF-MRI) group at the Chair of Imaging and Computer Vision. In collaboration with Fraunhofer MEVIS, we develop next-generation portable MRI systems by combining innovations in hardware, electromagnetic simulation, RF technology, and physics-informed AI for image reconstruction and noise cancellation. As one of the most promising directions in medical imaging, LF-MRI has the potential to bring MRI to the point of care, enabling new applications in primary care, and in mobile healthcare settings.

Your Key Responsibilities

- Develop and optimize hardware components to maximize signal sensitivity, including the permanent magnet-based B_0 -field, RF readout chain, and Gradient coil design.
- Investigate multi-channel and resonance-based techniques for improved imaging.
- Implement AI-driven signal enhancement and noise cancellation strategies.
- Collaborate in an interdisciplinary research environment.

Your Profile

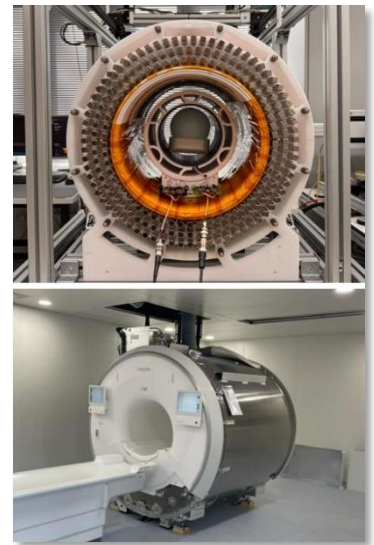
- PhD in MRI or a related field with a focus on system innovation.
- Solid expertise in B_0 /gradient design, RF coils, data acquisition, and image reconstruction.
- Highly independent and self-motivated, with a strong collaborative mindset.
- Passionate about advancing medical imaging through innovation.

What We Offer

- An excellent collaborative, interdisciplinary research environment with leading scientists.
- Access to state-of-the-art low-field MRI and commercial MRI systems.
- Opportunity to shape next-generation MRI solutions and contribute to high-impact publications.
- A full-time position (TV-L) and RWTH employee benefits.

Applications

Applications should be submitted by email by 1 September 2026 for the current application round. Please use the subject line "LFMRI_advanced_Postdoc_{LastName}" and include a CV, academic transcripts, a statement of research interests, and, if available, links to publications, thesis work, or code repositories.



*Top: Our own LF-MRI scanner.
Bottom: Our 1.5T MRI scanner.*