

The art of measurement — made in Germany. Striving to perfect it is the mission of the 2100 employees of PTB, the Physikalisch-Technische Bundesanstalt. As Germany's national metrology institute and a leading center of research, we operate in an international environment to develop world-class measurement standards. We at PTB work to ensure that people and organizations can trust the measurements they use.

At our Berlin-Charlottenburg site, we are looking to fill the following position in Department 8.1 "Biomedical Magnetic Resonance":

Research Group Leader (m/f/d) in Biomedical Magnetic Resonance Imaging

Remuneration Group A14 BBesO / E14 TVöD Bund ◦ permanent position ◦ full time

The working group is presently installed until Dezember 31, 2029.

Your tasks:

The research group succeeds the Ultra-High-Field MRI group, which focused in particular on novel MR excitation and acquisition techniques at 7 Tesla. This work will be continued and further expanded into new research areas. These include, among others, investigations of RF excitation and patient safety at 14 Tesla, characterization of the MR gradient system and measurements of system imperfections at different field strengths, as well as the development of open-source MR sequences.

- Scientific and personnel leadership of the research group
- Coordination and strategic alignment of the research group's activities and objectives
- Software development and implementation of solutions for RF excitation at field strengths ranging from 3 to 14 Tesla
- Development of (open-source) MR sequences, among others, for the characterization of MR gradient systems, the assessment of system imperfections, for temperature measurements and quantitative MRI
- Further development and continuation of projects in ultra-high-field MRI
- Support in the development and establishment of an RF test bench for 14 Tesla MRI
- Maintenance and expansion of collaborations with various research institutions and industry partners
- Acquisition of third-party funding and coordination of research projects
- Publication and presentation of scientific results
- Supervision of students and doctoral candidates

Your profile:

- Completed university degree (Master's or Diploma) with a PhD in physics, computer science, mathematics, electrical engineering, or a related field
- In-depth expertise in MR sequence development, ultra-high-field MRI, measurement and/or simulation of radiofrequency fields and pulses, and/or parallel transmission
- Demonstrated ability to publish independently in the relevant research area
- Very strong programming skills (e.g. in Python, MATLAB, or C++)
- Experience in the supervision and mentoring of students and doctoral candidates
- Experience in acquiring third-party funding and coordinating research projects

- High level of commitment and responsibility
- Strong innovative mindset, decision-making ability, and willingness to collaborate
- Strong teamwork and communication skills
- Proficiency in German and English (C1 level)
- Willingness to undertake business travel

As part of the selection process, you will be required to go through assessment testing that takes a couple of hours. We will use this to evaluate your skills and competence with respect to the requirements placed on PTB's managers.

We offer:

Department 8.1 "Biomedical Magnetic Resonance" in Berlin-Charlottenburg conducts research and development in the field of magnetic resonance imaging (MRI). For this purpose, the department operates an in-house 3-Tesla whole-body MRI system and has access to the 7-Tesla whole-body MRI system of the Berlin Ultra-High-Field Facility, in which PTB is a partner. The department offers expertise in MR metrology, low-field and high-field MRI, quantitative MRI, image reconstruction, and MR sequence development. In addition to the MRI systems mentioned above, the department's infrastructure includes a radiofrequency laboratory, a precision mechanical workshop, a dedicated RF cabin, and a computing cluster.

Close collaboration with Charité University Hospital in Berlin enables rapid preclinical and clinical evaluation of new methods.

This is important to us:

PTB promotes gender equality and strongly encourages applications from female candidates. At the same time, we strive to reflect the diversity of our society. We therefore welcome every application submitted, regardless of the candidate's gender, cultural or social background, religion, ideology or sexual identity. If equally suited to the position, disabled persons or persons having equivalent status under German law will be given preference.

Your application:

For subject-related questions concerning this position, please contact Department 8.1: Dr. Sebastian Schmitter, phone: +49 30 3481-7767, email: sebastian.schmitter@ptb.de.

We look forward to receiving your application by 9 February 2026 under Ref. No. 26-11-8C. Please click on the following button: ONLINE BEWERBEN. This will directly lead you to our application portal where you can upload your documents (CV, certificates, Cover letter). Unfortunately, we cannot accept applications sent via email. With your application you accept the data protection regulations.

