

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)
for the working group "MR technology"
in Biomedical Magnetic Resonance Imaging**

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

The working group is presently installed until December 31, 2031.

Your tasks:

Research Group 8.11 "MR technology" within the Department of Biomedical Magnetic Resonance focuses on hardware-oriented solutions for radiofrequency excitation at low and high magnetic fields. This includes RF coil design and construction, the development of a parallel-transmit console, simulation of radiofrequency fields for the assessment of patient and implant safety, as well as the construction and evaluation of an open-source low-field MRI system. To support these activities, the group has access to the department's dedicated radiofrequency and electronics laboratory, which is led by the group leader. Your tasks include:

- Scientific and personnel leadership of the research group
- Coordination and strategic alignment of the research group's activities and objectives
- Hardware development and technical solutions related to patient safety, implants, and RF transmission techniques at low and ultra-high magnetic field strengths
- Coordination and management of the department's radiofrequency and electronics laboratory
- Development and establishment of an RF test bench for 14-Tesla MRI
- Support of open-source hardware projects in the field of low-field MRI
- Participation in standardization committees
- 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, electrical engineering, computer science, mathematics, or a related field
- In-depth expertise in MR physics, MR hardware development, measurement and/or simulation of radiofrequency fields and pulses, and/or parallel transmission

- Experience in the operation or construction of MRI systems, particularly at high field strengths, is an advantage
- 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 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 23 February 2026 under Ref. No. 26-08-8C. 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.

