

Global thinking,
interdisciplinary research:
the spirit of Leibniz!



Nestled in a modern city surrounded by nature and with an exceptional standard of living, Leibniz University Hannover offers excellent working conditions in a vibrant scientific community.

The position is embedded in research at the interface of signal processing, machine learning, and medical imaging, with a strong focus on dynamic and motion-resolved MRI. The position is part of the ERC project EARTHWORM, which aims to fundamentally rethink how motion and dynamics of internal organs (e.g. uterus, bowel, placenta) are captured, modelled, and interpreted using MRI and AI-based methods.

The Institute of Information Processing welcomes applications for the following position starting at the earliest possible date:

Research Staff in the field Medical Image Processing (salary scale 13 TV-L, 100 %)

The Institute for Information Processing (tnt) offers an outstanding interdisciplinary research environment in signal processing, machine learning, and computer vision. The position includes close collaboration with clinical partners at the Medical School Hannover (MHH) and international collaborators, providing access to unique MRI datasets and state-of-the-art infrastructure.

The fixed-term position is for a duration of 3 years. Within the scope of the position, there is the possibility of pursuing a doctorate.

Your role

- Work with diverse, multi-modal datasets
- AI- and physics-informed learning for motion estimation, reconstruction, and analysis
- Spatio-temporal processing for dynamic MRI data
- Development of real-time or adaptive MRI methods
- Quantitative analysis of physiological motion (e.g. peristalsis, uterine activity)
- Translation of algorithmic developments into clinically relevant applications
- Present research results at workshops, conferences, and in journals.
- Engage in scientific exchange and active collaboration with related research groups.

Who are we looking for?

We are seeking a highly motivated individual to join us. If you are a dedicated and creative individual seeking to make a positive impact through your research, we encourage you to apply for our position. We will enable you to develop yourself professionally and personally through responsibility for scientific and industrial projects. The successful candidate must hold a university science degree in Computer Science, Physics, Mathematics or a related discipline.

In addition, we are looking for a candidate with the following:

- Strong background in signal processing, machine learning, or numerical methods
- Programming experience (e.g. Python, PyTorch, MATLAB, C/C++)
- Interest in medical imaging and interdisciplinary research
- High motivation, curiosity, and the ability to work independently and collaboratively
- Excellent scientific writing and communication skills in English (German is an asset).

Prior experience with MRI, inverse problems, or ML for imaging is an advantage, but not a requirement.

Equal opportunities and diversity are core values at Leibniz University Hannover. Our goal is to tap into individual potential and open up possibilities. We therefore welcome applications from anyone interested in the position, irrespective of gender, nationality, ethnic origin, religion or ideology, disability, age, sexual orientation and identity.

Why join us?

- A vibrant, creative research environment in an internationally visible team.
- Collaboration with top-tier international researchers and clinical partners.
- Participation in scientific workshops and conferences.
- Possibility to pursue a doctorate.

With more than 5.000 employees, Leibniz University Hannover is one of the largest and most attractive employers in the Hannover region. We offer a vibrant interdisciplinary and international working environment, and promote personal and professional [development](#) ranging from subject-related skills to leadership and languages.

Part-time employment as well as remote work (mobile work, work from home) can be arranged upon request. We support employees with [balancing work and family life](#), through services such as back-up childcare, childcare during school holidays, and parent-child offices, as well as providing individual advice regarding family responsibilities and caring for dependants.

To promote health and well-being among employees, we offer an extensive [sports programme](#) with over 100 different sports, as well as a fitness centre with a sauna and climbing space. [Health management](#) measures, such as courses on stress management, good nutrition and relaxation, aim to ensure a healthy workplace.

Additional information

For further information, please contact Prof. Dr.-Ing. Jana Hutter (tel.: +49 (0)511 762-5316, email: hutter@tnt.uni-hannover.de). Please submit your application by email.

Information on the collection of personal data according to article 13 GDPR can be found at: <https://www.uni-hannover.de/en/datenschutzhinweis-bewerbungen/>