Dresden University of Technology

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

At the **Faculty of Mathematics, Institute of Scientific Computing,** the **Junior Professorship in Applied Mathematics** offers a position as

Research Associate / PhD Student (m/f/x)

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **as soon as possible.** The position is limited to three years and comprises 75% of the full-time weekly hours. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). The position aims at obtaining further academic qualification (usually PhD).

Research area: Systems of interacting particles are ubiquitous in natural and social sciences. Typically, they comprise many agents that, through intra-specific and inter-specific interactions, give rise to a complex macroscopic behavior. They are described by nonlinear systems, which pose many analytical challenges.

Tasks:

- scientific research on the analysis and simulation of nonlinear partial differential equations arising in the context of interacting species
- study of interaction systems with applications to developmental biology, such as pattern formation and tissue growth
- teaching obligations in the field of mathematics (in accordance with the Saxon Higher Education Service Duties Ordinance – HSDAVO)
- participation in academic self-administration, e. g. public relations
- depending on the candidate's profile, the tasks may be adjusted accordingly

Requirements:

- excellent recent university degree in mathematics (Master or Diploma) with a strong background in (not necessarily all) the following fields: nonlinear PDEs, functional analysis, numerical analysis, PDE-based modeling and numerical simulations
- excellent command of the English language
- ability to teach in German and English

We offer:

- opportunity to work in an international environment
- participation in scientific exchange programs and short research stays abroad
- membership in the Graduate Academy of TU Dresden with access to further education and training opportunities
- flexible arrangement of working hours and remote work for balancing work and private life
- financial support for the purchase of a so-called job ticket (for public transport in Dresden and the surrounding area)
- childcare options
- German language course for international candidates (free of charge)

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

Please submit your detailed application with the usual documents by **January 8, 2026** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf file to **markus.schmidtchen@tu-dresden.de** or to:

TU Dresden, Junior Professorship in Applied Mathematics, Jun.-Prof. Dr. Markus Schmidtchen, Helmholtzstr. 10, 01069 Dresden, Germany.

Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

TUD is a founding partner in the DRESDEN-concept alliance.

DRESDEN concept

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: https://tu-dresden.de/karriere/datenschutzhinweis.