

Funded by the German Research Foundation, the

**Collaborative Research Center CRC 1701 “Port-Hamiltonian Systems”**

is inviting applications for

**14 doctoral student positions, as a research assistant (f/m/d)**

starting from 1<sup>st</sup> April 2025 with a maximum funding duration of up to 3 years and 9 months with 75% of the tariff working hours (pay grade: 13 TV-L).

We plan to fill 11 positions at the University of Wuppertal and one position each at Chemnitz University of Technology, Ilmenau University of Technology and the University of Trier.

Port Hamiltonian systems represent an important and attractive new paradigm for the mathematical modeling of coupled dynamical systems. Through a systematic formulation of the ports (inputs), several systems can be coupled or large systems can be broken down into subsystems without losing their central properties.

Within CRC 1701, you contribute to the development of the underlying mathematical theory for the analysis, discretization and optimization of port-Hamiltonian systems. This fundamental research provides a deep understanding and, in the long term, facilitates improvements to the existing methods that are already being used successfully in engineering.

**You can look forward to:**

- an excellent research environment and a vibrant interdisciplinary community,
- international cooperation and exchange,
- research that pushes the boundaries of the theory of port-Hamiltonian systems,
- supportive supervision and professional trainings which prepare you to excel in research, stimulate crossing borders between disciplines, and include transferable skills and career development opportunities.

**Professional and personal recruitment requirements:**

We are looking for highly motivated, excellent and open-minded applicants with a university degree (M.Sc. or comparable) whose scientific interests and previous knowledge match the topics of the CRC 1701. Detailed information about the professional and personal requirements can be found here:

<https://phi.uni-wuppertal.de/fileadmin/phi/RequirementsPhD.pdf>

**Responsibilities and duties:**

- collaboration in research aligned with the topics of the CRC 1701,
- joint development and publication of scientific articles, presentation of results at workshops and conferences,
- increasingly independent development of research ideas and preparation of a dissertation,
- Participation in networking within the members of the CRC, within the faculty and the cooperating faculties, nationally and internationally,
- participation and involvement in the offers of the structured doctoral program of the CRC 1701.

At the University of Wuppertal, we value the diversity of our university members and try to resolutely counter discrimination of any kind. We are committed to equality, equal opportunities and the compatibility of family and career in order to be able to live up to our claim of excellent research. These values are also central to the CRC 1701.

We provide a welcoming onboarding process and support you to integrate into a possibly new and different cultural environment. Individual trainings and further educational opportunities promote your personal and professional development. We offer a pleasant and collegial working atmosphere, flexible working hours with, if appropriate, the option of partly working from home. Other benefits include the additional pension scheme of the public service (LBV), participation in university sports and varied meal options in the campus canteens.

This is a qualification position within the meaning of the Science Time Contract Act (Wissenschaftszeitvertragsgesetz – WissZeitVG) which serves to carry out a third-party funded research project. The duration of the employment contract shall be appropriate to the scientific qualification sought.

**Reference number: 24402**

Applications must be submitted via the online portal of the University of Wuppertal:  
<https://stellenausschreibungen.uni-wuppertal.de>

**The application consists of the following documents:**

1. cover letter explaining your motivation,
2. a current curriculum vitae,
3. an application form completed by the applicant (<https://phi.uni-wuppertal.de/fileadmin/phi/ApplicationFormPhD.pdf>),
4. the Bachelor's degree certificate, including diploma supplement,
5. the Master's degree certificate, including diploma supplement. If the Master's certificate cannot yet be submitted, a proof of current achievements or a provisional examination certificate can also be submitted.

Please do not include a photo in your application documents. Only your qualifications and previous experience count for the selection. Incomplete applications cannot be considered!

The contact person for the application is the spokesperson of the CRC 1701, Prof. Dr. Birgit Jacob.

The University of Wuppertal is an equal opportunity employer. Applications from persons of any gender and persons with disabilities as well as persons with an equivalent status are highly welcome. In accordance with the Gender Equality Act of North Rhine-Westphalia female applicants will be given preferential consideration unless there are compelling reasons in favour of an applicant who is not female. The same applies to applications from disabled persons, who will be given preference in the case of equal suitability.

**Application deadline: 2025-01-06**