



Paderborn University is a high-performance and internationally oriented campus university with around 20,000 students. In interdisciplinary teams, we shape future-oriented research, innovative teaching and the active transfer of knowledge to society. As an important research and cooperation partner, the university also shapes regional development strategies. We offer our more than 2,600 employees in research, teaching, technology and administration a lively, family-friendly and fair working environment with short decision-making processes and a wide range of opportunities.

Join us to invent the future!

With the Institute for **Photonic Quantum Systems** (PhoQS), the Paderborn University aims to establish an international research center in the field of photonic quantum technologies. The ultimate focus is on the understanding and control of photonic quantum simulators and quantum computers. The institute is an interdisciplinary central research facility of the university.

Within this scope, the newly founded **junior research group „Mathematical Physics of Complex Quantum Systems“** in the Institute of Mathematics (Faculty of Computer Science, Electrical Engineering and Mathematics) invites applications for the following fixed-term position, which will start at the earliest opportunity:

Research Assistant (f/m/d)

(salary is according to E13 TV-L)

with 75% of the regular working hours.

This is a qualification position in the sense of the Wissenschaftszeitvertragsgesetz (WissZeitVG), which serves to support a doctoral procedure in the field of mathematical physics. The position is limited for the duration of the PhD procedure, depending on the qualification achieved so far, but usually for a period of 3 years. An extension to finish the PhD is possible in accordance with the rules of the WissZeitVG.

Duties:

- Research on the mathematically rigorous description of quantum dynamics, quantum field theory or related models from physics
- Active collaboration on publications and other projects of the research group
- Teaching on the order of 3 hours per week

Hiring requirement:

- Scientific degree (master/diploma) in mathematics or physics
- Knowledge in a research area of the research group or related topics is desirable, but not required. This includes
 - mathematical methods of quantum theories, such as
 - spectral theory of selfadjoint operators
 - stochastic processes and Feynman-Kac formulas
 - models of quantum mechanics and quantum field theory, such as
 - spin boson, Nelson or polaron models
 - non-relativistic and relativistic quantum electrodynamics
 - many particle systems

Since Paderborn University seeks to increase the number of female scientists, applications of women are especially welcome. In case of equal qualification and scientific achievements, they will receive preferential treatment according to the North Rhine-Westphalian Equal Opportunities Policy (LGG), unless there are cogent reasons to give preference to another applicant. Likewise, applications of disabled people with appropriate qualification are explicitly requested. This also applies to people with equal status according to the German social law SGB IX.

Please send your application including the usual documents (letter of motivation, CV, certificates; as a single pdf file) using the **reference number 5825** by **April 30th 2023** to: benjamin.hinrichs@math.uni-paderborn.de.

Information regarding the processing of your person data can be located at: <https://www.uni-paderborn.de/en/zv/personaldatenschutz>.

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