



Paderborn University is a high-performance and internationally oriented university. Within interdisciplinary teams, we undertake forward-looking research, design innovative teaching concepts and actively transfer knowledge into society. As an important research and cooperation partner, the university also shapes regional development strategies. We offer our employees in research, teaching, technology and administration a lively, family-friendly and equal opportunity environment, a lean management structure and diverse opportunities. **Join us to invent the future!**

The **Faculty of Science**, Department of Physics, offers the position of

## Postdoc (f/m/d)

(Salary level 13 TV-L)

with 100% of the regular working hours. This is a qualification position within the meaning of the Wissenschaftszeitvertragsgesetz (WissZeitVG), which serves to support the scientific qualification in the post-doctoral phase in the field of Quantumphotonics & Optoelectronics. The position is initially limited for a period of 2 years due to thirdparty funding with potential extension. The setting period corresponds to the project period. Start date: between April and October 2025 (to be discussed).

The research group Quantumphotonics & Optoelectronics at UPB is now hiring new team members in a newly established laboratory. Research projects evolve around active control of quantum emitters, tunable light-matter interaction and integrated photonic devices (see: <https://physik.uni-paderborn.de/en/quantumphotonics-optoelectronics>). Paderborn University (UPB) has a strong research focus on integrated quantum systems, photonics, optoelectronics in experimental science and theory. A new institute building (PhoQs) is opening its doors this year adding a second state-of-the art cleanroom and new research laboratories to Paderborn's infrastructure.

### Field of activity:

- Quantum emitter spectroscopy, Optoelectronic measurements & characterization
- Conducting experiments based on fundamental theories (Electrodynamics & Quantummechanics)
- Publishing in high impact journals
- Mentoring PhD and M.Sc. Students, project supervision.
- Presenting your research at international conferences. Collaboration in research and teaching
- Nanofabrication of structures and devices, supervising PhDs in nanofabrication.
- Optical and optoelectronic simulations

### Recruitment requirements:

- PhD in Physics, Electrical Engineering, Material Science, or Computer Science
- Track record of high-level research published in scientific journals & presented at international conferences
- Experience in experimental research with focus on nanophotonics, active metasurfaces and quantumoptics. The ideal candidate worked on spectroscopy of quantum emitters (life time-,  $g(2)$ -, HOM measurements), active nanophotonics, quantumoptics.
- Fluent in English and/or German. Teamwork & communication skills
- Trained in experimental research, ability to set up experiments from scratch, simulations

### We offer:

- Research in state-of-the art facilities, laboratories, cleanrooms, computer cluster
- Flexible working hours and the individual option of mobile working
- Wide range of health, counseling and prevention services
- Attractive fringe benefits such as childcare facilities and sports activities
- Opportunities for internal and external training and development
- Additional benefits in accordance with the collective agreement of the federal states (TV-L), such as annual bonuses and capital-forming benefits as well as the VBL supplementary pension scheme

Applications from women are particularly welcome and, in case of equal qualifications and experiences, will receive preferential treatment according to state law (LGG), unless there are preponderant reasons to give preference to another applicant. Part-time employment is generally possible. Applications from disabled people with appropriate suitability are explicitly welcome. This also applies to people with equal opportunities in accordance with the German social law SGB IX.

Please send your application (preferably in a single pdf file) by **3<sup>rd</sup> March 2025** with **reference number 6822** to [ngusken@mail.uni-paderborn.de](mailto:ngusken@mail.uni-paderborn.de)

Information regarding the processing of your personal data can be located at:

<https://www.uni-paderborn.de/en/zv/personaldatenschutz>.

More information on our group & the PhoQs can be found here:

<https://physik.uni-paderborn.de/en/quantumphotonics-optoelectronics>

<https://physik.uni-paderborn.de/en/quantumphotonics-optoelectronics/open-positions>

<https://phoqs.uni-paderborn.de/en/>

### LinkedIn

Dr. Nicholas A. Güsken  
University of Paderborn  
Faculty of Science - Physics  
Warburger Straße 100  
D-33098 Paderborn

