The University of Paderborn is a high-performance and internationally oriented university with approximately 20,000 students. Within interdisciplinary teams, we design forward-looking research, innovative teaching and the active transfer of knowledge into society. As an important research and cooperation partner, the university also shapes regional development strategies. We offer our more than 2,300 employees in research, teaching, technology and administration a lively, family-friendly, equal opportunity environment, a lean management structure and diverse opportunities.

Join us to invent the future!

The Faculty of Science, Department of Physics, Integrated Quantum Optics Group, offers the position of

**Researcher/PhD student (m/f/d)**

(pay scale 13 TV-L)

Applications are invited for a 75 % PhD position within the BMBF Verbundprojekt "MiLiQuant" to commence at the earliest possible date. The position entails a fixed term contract for the duration of the PhD project in the field of integrated ultrafast quantum optics and is initially limited to three years, depending on the previous qualification (according to the German law "Wissenschaftszeitvertragsgesetz").

**Position Profile:**
- MiLiQuant aims to realize miniaturized light sources for industrial applications in quantum sensing and quantum imaging.
- With strong theory and fabrication support from our own group and project partners, the goal is to model and implement novel quantum light sources for enhanced imaging applications by:
  - Identifying suited imaging protocols.
  - Modelling appropriate quantum light sources that will be fabricated in our in-house clean room.
  - Characterizing the performance of the sources and protocols in our own laboratories and at partner sites.
- The position will be integrated in a large, dynamic, and friendly international group, with expertise from device design and fabrication, to quantum photonics and networking.
- The regular teaching responsibility consists of 3 hours per week.

**Your Profile:**
- Completed university degree in physics
- Experience in experimental physics, in particular quantum optics
- Experience in integrated optics and integrated quantum optics
- Theoretical knowledge of modelling and simulation of physical systems
- Knowledge of data analysis and programming

Applications from women are particularly welcome and, in case of equal qualifications and experience, will receive preferential treatment according to state law (LGG). Qualified disabled people (in the sense of the German social law SGB IX) are also encouraged to apply.

Please send your application by **9 April 2019** with reference **3769** to:

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Faculty of Science  
Department of Physics  
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