Paderborn University is a high-performance and internationally oriented university with approximately 20,000 students. 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 more than 2,500 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!

In the Faculty of Science, the Department of Physics is seeking applications for the following position:

**W 2 University Professorship (f/m/d)**
**of Integrated Quantum Optics and Superconducting Electronics**

The candidate is expected to pursue an excellent, internationally recognised research programme in integrated quantum optics and quantum technology, specifically in the field of integrated quantum optics operating at cryogenic temperatures and superconducting electronics as well as their applications in quantum communication and information processing systems. Candidates with expertise in the design, fabrication and characterization of non-linear and electro-optic integrated devices in combination with superconducting detectors are particularly encouraged. Possible topics include integrated quantum optical processing circuitry with photon counting, quantum state preparation with measurement-induced non-linearity, quantum networks and hybrid continuous/discrete variable systems with large photon numbers.

The candidate is expected to teach courses across the whole experimental physics curriculum on the Bachelor and Master levels and to contribute to teaching in the field of quantum information processing. This consists of core lectures in Experimental Physics as well as offering attractive elective and specialist lectures in all courses of study covered by the Department of Physics and the newly founded interdisciplinary “Institute for Photonic Quantum Systems” (PhoQS, [https://www.uni-paderborn.de/en/phoqs](https://www.uni-paderborn.de/en/phoqs)). Teaching in the Department is undertaken in English as well as German, and it is expected that the candidate will be able to teach in both languages, if necessary after a transition period. German language courses are available to facilitate this if required.

As well as pursuing his or her own research agenda, it is expected that the candidate will actively engage with and contribute to the overall research strategy of the Department of Physics. This includes the Transregional Collaborative Research Center SFB-TRR 142: “Tailored Nonlinear Photonics: from fundamental concepts to functional structures” as well as the “Institute for Photonic Quantum Systems” (PhoQS).

**Hiring requirements:** § 36 Abs. 1 Ziff. 1 - 4 HG NW - University law of the State of NRW - (completed university degree, pedagogical aptitude, Ph.D. degree and additional research achievements).

Since Paderborn University seeks to increase the number of female professors, 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.

Applications with the usual documents, including a research and teaching plan, must be received by 01.04.2021 (Ref. No. 4594). Please send your application (preferably in a single pdf file by e-mail) to: dekan-nw@upb.de.

Information regarding the processing of your personal data can be located at: [https://www.uni-paderborn.de/en/zv/personaldatenschutz](https://www.uni-paderborn.de/en/zv/personaldatenschutz).

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