

Saarland University is a campus university with an international focus and a strong research profile characterized by the three main research areas 'Computer Science', 'NanoBioMed' and 'Europe'. With numerous internationally respected research institutes situated in the vicinity of the university and dedicated support for start-up companies, Saarland University is an ideal environment for research, teaching and innovation. The proportion of international students studying at Saarland University is well above the national average and is testimony to the university's strong international focus. Saarland University has been an officially certified family-friendly university since 2004.

One of the key fields of research at the Department of Physics is quantum technologies, particularly in the areas of quantum information processing, quantum communication and quantum sensing. The department maintains strong Interdisciplinary links to research groups in mathematics, computer science, systems engineering and chemistry.

The Department of Physics in the Faculty of Natural Sciences and Technology at Saarland University in Saarbrücken is inviting applications for the following position to commence on 1 October 2024:

# W1 Junior Professorship (W3 tenure track position) in Experimental Physics with a focus on Quantum Technologies

(m/f/x; Reference no.: W2375)

This position will initially be a fixed-term public sector position (Beamtenverhältnis auf Zeit) for a period of four years. The duration of the appointment may be extended up to a maximum of six years in total if this is supported by the results of the teaching appraisal and the external assessment of the appointee's research work. If performance continues to meet the required standards and if the tenure evaluation procedure is positive, the junior professor will be promoted to a permanent professorship (lifetime tenure) at the German academic salary scale W3.

The successful candidate will conduct research in the field of controllable quantum systems. Possible experimental platforms include, among others, trapped-atom or trapped-ion systems, defects in solids such as colour centres in diamond, and semiconductor quantum dots. Your research work should focus on potential applications in the fields of quantum technologies such as quantum metrology/sensing, quantum communication or quantum computing/simulation. The research programme you propose should complement and strengthen existing research work being conducted in the Department of Physics. Close involvement in the Transregional Collaborative Research Centre SFB-TRR 306 QuCoLiMa 'Quantum Cooperativity of Light and Matter' and participation in the Jülich-Saarbrücken Graduate School 'Quantum Information and Computation' would be welcome. A core future task will be to develop research activity at the interface of physics and physics-adjacent disciplines such as mathematics, computer science, systems engineering and chemistry. The successful applicant will be involved in teaching the full range of courses and modules in experimental physics as well as contributing to the Bachelor's and Master's degree programme 'Quantum Engineering'.

The appointment will be made in accordance with the general provisions of German public sector employment law. Candidates must be university graduates with experience in and an aptitude for academic teaching who have demonstrated a particular capacity for independent academic research, usually evidenced by the outstanding quality of their PhD or doctoral thesis. If the applicant was employed as a research associate in Germany before or after their PhD/doctorate, the combined period of doctoral research and employment should not exceed six years. For additional information on employment requirements, please refer to Sec. 1.3 of the Framework Regulations Governing the Approval, Recruitment and Evaluation Procedures for Junior Professorships at Saarland University (Rahmenordnung zur Freigabe, Besetzung und Evaluation von Juniorprofessuren an der Universität des Saarlandes) of 12 December 2018 ([www.uni-saarland.de/berufungen](http://www.uni-saarland.de/berufungen)).

We expect applicants to have published high-quality academic papers on relevant topics and to have experience in securing external funding especially for research projects. The successful candidate will be expected to contribute innovative teaching concepts at all academic levels (Bachelor's, Master's and doctoral programmes). You should also be willing to teach in English, to provide dedicated supervision to students working on their final-year thesis projects and to support and foster junior researchers.

At Saarland University, we view internationalization as a process spanning all aspects of university life. We therefore expect members of our professorial staff to engage in activities that promote and foster further internationalization. Special support will be provided for projects that maintain collaborative interactions within existing international cooperative networks, e.g. projects with partners in the European University Alliance Transform4Europe ([www.transform4europe.eu](http://www.transform4europe.eu)) or the University of the Greater Region ([www.uni-gr.eu](http://www.uni-gr.eu)).

In accordance with the objectives of its gender equality plan, Saarland University is actively seeking to increase the proportion of women in this field. Qualified women candidates are therefore strongly encouraged to apply. Preferential consideration will be given to applications from disabled candidates of equal eligibility. Furthermore, we welcome applications from all qualified candidates irrespective of nationality, ethnic heritage or social background, religious beliefs, personal beliefs or values, age, sexual orientation or identity.

To apply for this position, please submit your application by no later than **4 January 2024** via Saarland University's online professorial appointments platform: [www.uni-saarland.de/berufungen](http://www.uni-saarland.de/berufungen). Application documents must be uploaded as a single PDF file (max. size 10 MB) and should include the following documents:

- letter of application (addressed to the Dean of the Faculty of Natural Sciences and Technology Prof. Ludger Santen);
- CV/résumé (including your home address, phone number and email address);
- copies of relevant academic qualifications;
- a list of publications;
- a summary of your previous experience in academic teaching and research (incl. teaching appraisals, if available);
- types of external funding secured and amounts;
- a two-page paper detailing your teaching concept and a two-page research concept;
- your three most significant publications of the last five years;
- and the completed recruitment questionnaire for junior professorships at Saarland University.

When you submit a job application to Saarland University you will be transmitting personal data. Please refer to our privacy notice for information on how we collect and process personal data in accordance with Art. 13 of the General Data Protection Regulation (GDPR) ([www.uni-saarland.de/en/privacy](http://www.uni-saarland.de/en/privacy)). By submitting your application you confirm that you have taken note of the information in the Saarland University privacy notice.