

Saarland University is a campus university that is internationally recognized for its strong research programmes. Fostering young academic talent and creating ideal conditions for teaching and research are a core part of the university's mission. As part of the University of the Greater Region, Saarland University enables students and staff to share and exchange knowledge and ideas between disciplines, between universities and across borders. With over 17,000 national and international students, studying more than a hundred different academic disciplines, Saarland University is a diverse and dynamic learning environment. [Saarland University is officially recognized as one of Germany's family-friendly higher-education institutions and with a combined workforce of more than 4,000 it is one of the largest employers in the region.]

The **Center for Quantum Technologies at Saarland University** is inviting applications for the following position commencing at the earliest opportunity.

## 10 PhD/PostDoc positions and 2 Center Fellows in Quantum Technologies, in Physics, Computer Science and Mathematics (m/w/x)

**Reference number W2741**, salary in accordance with the German TV-L salary scale<sup>1</sup>, pay grade: E13 TV-L, duration of employment: 2 or 3 years, volume of employment: 75-100 % of standard working time.

## **Workplace/Department:**

Within the next few months, a new Center for Quantum Technologies (QuTe) will be founded at Saarland University. This center pursues research on quantum technologies in a broad sense, on the "hardware" side (in quantum physics, quantum optics and quantum engineering) as well as on the "software" side (in quantum information, theoretical physics / computer science / mathematics and quantum computing). It is truly interdisciplinary at the interface of Physics, Systems Engineering, Computer Science, and Mathematics. It will include an outpost of the Forschungszentrum Jülich with which it will closely collaborate.

## Job requirements and responsibilities; academic qualifications:

We are offering 10 PhD (for 3 years) or PostDoc positions (for 2 years) and two independent Center Postdoctoral Fellow positions (for 3 years) at the newly established Center for Quantum Technologies (QuTe) at Saarland University with a focus on Physics, Computer Science or Mathematics.

TV-L = collective agreement on remuneration of public sector employees in the German *Länder* 

The pay grade assigned to an employee depends on their professional qualifications and the number of years of service. Each pay grade is further subdivided into levels. Entry-level employees with no previous experience will initially be assigned a level 1 rating. After one year at level 1 of the E10 pay grade, an employee will move up to level 2. After a further two years, the employee will move to level 3, etc.



The **PhD candidates** will have a Master's degree in Physics, Computer Science or Mathematics and they are interested in doing a PhD project with one of the following group leaders at QuTe: Prof. Christoph Becher (Experimental Physics, Quantum Optics), Prof. Markus Bläser (Theoretical Computer Science, Complexity Theory), Prof. Jonas Haferkamp (Mathematics, Quantum Information Theory), Prof. Giovanna Morigi (Theoretical Quantum Physics), Prof. Peter P. Orth (Theoretical Condensed Matter Physics, Quantum Computing), Prof. Moritz Weber (Mathematics, Quantum Symmetries), Prof. Frank Wilhelm-Mauch (Theoretical Physics, Quantum Computing). Ideally, a PhD project is supervised by two of these advisors jointly. When applying for a PhD position, please state the courses you attended in quantum technologies in a broad sense such as quantum computing, quantum information, quantum algorithms, quantum optics, quantum physics, complexity theory or quantum mathematics, amongst others. Please name one or (ideally) two possible advisors amongst the ones listed above and articulate your scientific interests.

The **PostDoc candidates** will have a PhD in Physics, Computer Science or Mathematics, with a PhD project relevant to the QuTe research areas, such as quantum computing, quantum information, quantum algorithms, quantum optics, quantum physics, complexity theory or quantum mathematics, amongst others. They are interested in doing a PostDoc project with one of the group leaders at QuTe as listed above. Ideally, a PostDoc project is supervised by two of these group leaders jointly. Please name one or (ideally) two possible advisors amongst the ones listed above and submit a research project/your research interests in the realm of quantum technologies.

The **candidates for the Center Postdoctoral Fellow positions** hold a PhD and they have an excellent and publication research record in Quantum Technologies in a broad sense, for instance in Physics, Computer Science, Mathematics or Systems Engineering or in related fields. They are willing to work interdisciplinary. The Center Fellows are employed directly at QuTe and they will receive support in building their own research group, including the acquisition of third-party funding. Collaborations with the above mentioned group leaders and with the Forschungszentrum Jülich is encouraged.

For the **PostDoc** and **Center Fellow positions**, experience in the acquisition of third party funded projects is appreciated.

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 continue with or expand on collaborative interactions within existing international cooperative networks, e.g. projects with partners in the European University Alli-ance Transform4Europe (www.transform4europe.eu) or the University of the Greater Region (www.uni-gr.eu).

## What we can offer you:

- A flexible work schedule allowing you to balance work and family, among other things the possibility of teleworking
- Secure and future-oriented employment with attractive conditions
- A broad range of further education and professional development programmes (for example language courses)
- An occupational health management model with numerous attractive options, such as our university sports programme
- Supplementary pension scheme (RZVK)
- Discounted tickets on local public transport services ('Job-Ticket' of the saarVV)
- Job bike leasing (JobRad)



We look forward to receiving your **meaningful online application** by **16.12.2025** to **bewerbung@uni-saarland.de**. Please include the reference number **W2741** in the subject line of the e-mail. Application documents must be uploaded as a single PDF file (max.10MB) and must include the following documents:

- A letter of application, which should be addressed to the group leaders of the Center for Quantum Technologies and which should include your private address, phone number and email,
- For PhD candidates, your CV/résumé including details of study program and electronic copies of your certificates,
- Additionally for PostDoc and Center Fellow candidates, details of your PhD project and your subsequent research,
  your teaching experience (if applicable), a complete list of publications highlighting your three most relevant
  publications regarding your planned research at QuTe, a statement of your scientific experience/interests and of
  your previous and planned research, and your record in acquiring third-party funding,
- A statement of motivation for doing a PhD/PostDoc at QuTe, for the Center Fellows a statement sketching your vision of interdisciplinarity at QuTe and for pushing forward quantum technologies in general.

If you have any **questions**, please contact the **group leaders of QuTe** directly or **Prof. Moritz Weber** (email: weber@math.uni-sb.de) for general questions on the planned Center for Quantum Technologies (QuTe).

Pay grade classification is based on the particular details of the position held and the extent to which the applicant meets the requirements of the pay grade within the TV-L salary scale. Part-time employment is generally possible.

If you have obtained a foreign university degree, a proof of the equivalence of this degree with a German degree by the Zentralstelle für ausländisches Bildungswesen (ZAB) is needed before hiring. If necessary, please apply for this in time. You can find more information at <a href="https://www.kmk.org/zeugnisbewertung">https://www.kmk.org/zeugnisbewertung</a>.

Unfortunately, neither costs for attending an interview at Saarland University nor costs for any certificate evaluation by the ZAB can be reimbursed in principle.

We welcome applications regardless of gender, nationality, ethnic and social origin, religion/belief, disability, age, and sexual orientation and identity. In accordance with its policy of increasing the proportion of women, the University actively encourages applications from women. Applications from severely disabled persons will be given preferential consideration in the event of equal suitability.

When you submit a job application to Saarland University you will be transmitting personal data. <u>Please refer to our privacy notice for information on how we collect and process personal data in accordance with Art. 13 of the Datenschutz-Grundverordnung</u>. By submitting your application you confirm that you have taken note of the information in the Saarland University privacy notice.