

The Chair for Applied Physics is a leading research facility in quantum optics, polaritonics, and nanostructure opto-electronic devices. We operate a 550 m² clean room facility equipped with a complete semiconductor technology line, including epitaxial growth as well as nanostructure fabrication and characterization. Our research is conducted within numerous national and international projects and collaborations with other universities, research centers and the industry.

We are looking for a

PostDoc for development of quantum light sources for photonic cluster-state generation

What you will be working on

Within the BMBF funded project Qecs, we investigate novel, deterministic quantum light sources of photonic cluster states as a resource for photonic quantum computing and quantum networks. The successful candidate will join our multidisciplinary team and be working on:

- Development of deterministic quantum light sources based on III-V quantum dots (QDs)
- Build a state-of-the-art setup for the deterministic generation photonic cluster states based on an open cavity approach
- Creation and manipulation of photonic cluster states

The theory part of the project is supported by the chair for theoretical physics 1 (TP1) in Würzburg (Prof. Dr. Ronny Thomale).

Starting date is as soon as possible.

What is required

- PhD in physics or related field
- Work experience in quantum optical spectroscopy, preferably experience in optical spectroscopy of individual spins and work with cryostats
- Experience with semiconductor quantum dots, AMO physics or quantum optics
- Originality and productivity in research, proven by the scientific track record
- Excellent written and spoken English language skills (working language is English)

What we offer

- A full-time position for a duration of 4 years, part-time is possible if full-time coverage is facilitated by job sharing
- Payment based on the German TV-L scale
- A unique opportunity to join a strong interdisciplinary multi-national team of researchers with a shared interest in quantum physics and semiconductors
- Working in a state-of-the-art technological infrastructure
- Opportunity to grow your scientific track record with high impact publications in peer-reviewed scientific journals

How to apply

Please send your application including your cover letter, CV, transcript of records and certificates, list of publications and three recommendation letters in one single pdf file (no more than 10 MB) to Dr. Tobias Huber (tobias.huber@uni-wuerzburg.de). There is no deadline as the position will remain open until filled with the ideal candidate.

The University of Würzburg is an equal opportunity employer. All qualified applicants will be considered for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or age.



For questions

Dr. Tobias Huber

tobias.huber@uni-wuerzburg.de

+49 931-31 84117