in Experimental Quantum Physics

Openings for a

Interested in fascinating quantum effects of structured matter waves? Eager to work on cutting-edge research in experimental quantum optics and atom physics?

The Experimental Quantum Optics group is looking for a motivated Postdoc and PhD student to support our efforts on studying fundamental aspects and possible applications of structured matter waves. Besides performing research on the highest level, the position will provide the opportunity to work in a diverse research group, which is embedded in a highly active research infrastructure.

As an employer we are committed to promoting diversity within our team and would like to encourage all interested applicants, irrespective of their gender and backgrounds to apply!

Who we are!

Tampere University

The Experimental Quantum Optics group is a young research group (est. 2019) working on structured classical and quantum light as well as matter waves of electrons and ions. The latter efforts are financially supported by the ERC Starting grant TWISTION, where we explore novel mechanism to investigate charged matter waves. The group is embedded



into an internationally known research hub at the Tampere University, Finland, which is leading the Photonics Flagship PREIN and has multiple collaborations within a large network of quantum science experts across the world.

Interested in joining?

We are looking for a talented and motivated Postdoctoral Researcher as well as PhD student to carry out quantum physics research of coherent beams of electrons and ions. In particular, we explore how spatial structures can be leveraged to explore new physics effects, which includes theoretical considerations, numerical simulations, as well as cutting-edge experimental research. In addition, we encourage and support our new group members to also contribute to our quantum optics research whenever possible and helpful. The positions will also enable you to refine your supervising skills and to develop and pursue your own ideas to establish your own independent highlevel research profile (especially for postdoctoral fellows).

Postdoc candidates must hold an internationally recognized PhD degree with a background in experimental quantum research and will be offered a 2-year position with a possibility of extension. PhD candidates must hold an internationally recognized Master degree, and some expertise in quantum physics is highly appreciated. Both positions can be filled this summer with some flexibility in the starting date.

How to apply?

The full application should be written in English and needs to include a CV incl. list of publications, possible references (incl. full email address), and a motivation letter. More info can be found on the submission webpage.

Please submit your application via the official webpages <u>Postdoc</u> and <u>PhD</u> (deadline 22nd May 2025).

For more question, please contact Robert Fickler (robert.fickler@tuni.fi)



Finland is the worlds happiest country (link) and among the most stable, free, and safe countries in the world, based on prominent ratings by various agencies. Tampere is counted among the major academic hubs in the Nordic countries and offers a dynamic living environment. The city is an industrial powerhouse that enjoys a rich cultural scene, incl. various music festivals, an international theater and film festival as well as a reputation as a centre of Finland's information society.