

Olomouc 15.08.2024

The Dean of the Faculty of Science announces a selection procedure for the job position of

# Postdoctoral research fellow with focus on distributed hybrid operations

Research Field: Distributed hybrid operations implemented by quantum communication

Number of Posts: 1 Researcher Profile: R2

Programme/Project name: OP JAK QUEENTEC Department/Facility: Department of Optics Type of contract: Fixed-term contracts

Job Status: Full-time Hours per Week: 40

Location: 17. listopadu 12, Olomouc Offer Starting Date: 01.10.2024

#### **Department/Facility description**

https://optics.upol.cz/en/

#### Job Profile

As part of the work package WP1 of the OP JAK QUEENTEC project, the postdoctoral researcher will deal with the analysis of the distributed quantum operations implemented by quantum communication for the motion and oscillations of cooled atoms, ions, molecules, nanoparticles and other systems, their hybrid nonlinear interactions and numerical modelling of these processes and interactions for experimental proposals including applications in quantum sensing, simulation and computation. The postdoc will collaborate with the theoretical team at the Department of Optics, Faculty of Science UP, led by Prof. Radim Filip and with experimental teams at the Department of Optics of the Academy of Sciences of the Czech Republic in Olomouc (Dr Lukáš Slodička), at the Institute of Instrumentation of the Academy of Sciences of the Czech Republic in Brno and the Jaroslav Heyrovský Institute of the Academy of Sciences of the Czech Republic in Prague involved in the QUEENTEC project. The mentor of the postdoctoral researcher will be Prof. Radim Filip.

### Requirements

- Ph.D. in Physics
- Specialization in quantum optics, quantum communication with continuous variables, capacity of transmission channels, quantum detection of light, quantum sensing and light-matter interaction
- Publication track record in quantum optics, quantum communication with continuous variables, the capacity of transmission channels, quantum detection of light, quantum sensing and lightmatter interaction
- Ability to communicate in English

#### What we offer

- Reliable employer
- State-of-the-art equipment for teaching and research
- Professional development opportunities
- 30 days of vacation
- Meal allowance, canteen meals or meal vouchers



- Other benefits
- Workplace within easy reach of public transport, parking available
- Fixed-term contract for 12 months with the possibility of further extension

#### **Documents requested**

- CV in English
- · Scan of Diploma
- · Academic record track over the last 5 years

If you are interested in this position, please, fill in the contact form and attached the requested documents no later than 16.09.2024.

## **Contact person**

Filip Radim, prof. Mgr., Ph.D., radim.filip@upol.cz, +420585634249

#### **Additional Information**

The Palacký University reserves the right not to fill the position in an exceptional case without giving any reason or to cancel the selection procedure.