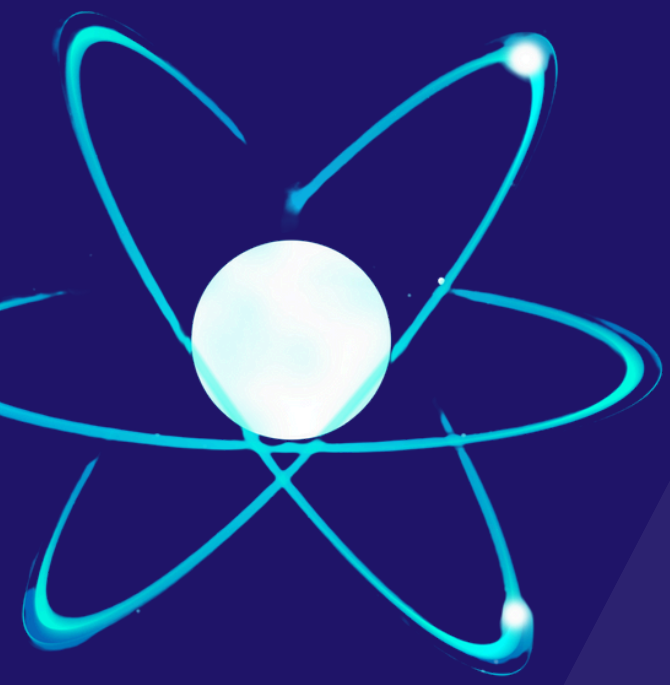
POSTDOCTORAL RESEARCHER IN QUANTUM OPTICS (FTMC)

Institution: Center for Physical Sciences and Technology, Quantum Optoelectronics Group
Location: Vilnius, Lithuania
Duration: 2 years
Start date: no later than 31 January 2026
Interested? Please contact tadas.paulauskas@ftmc.lt



FTMC

Position Overview

We are seeking a talented and motivated Postdoctoral Researcher in Quantum Optics to join our research group and contribute to cutting-edge experiments at the interface of single-photon generation, quantum communications, and quantum device evaluation.

The position offers an inspiring, interdisciplinary research environment with access to state-of-the-art laboratory infrastructure, a collaborative international team, and strong links to the photonics industry.

Job Description

The successful candidate will conduct experimental research in quantum optics, focusing on the development and characterization of single-photon and entangled-photon sources, as well as quantum communication–relevant systems. Depending on your expertise and interests, your work may include:

- Developing and benchmarking room-temperature single- and entangled-photon platforms in the visible to near-infrared range (e.g., atomic-defect-based emitters, parametric down-conversion sources, weak coherent pulse sources).
- Implementing and evaluating quantum-optical experiments, including source characterization, photon-correlation measurements, and system stability/throughput analysis.
- Contributing to quantum key distribution (QKD) or quantum random number generation (QRNG) device and protocol testing, integration, and performance evaluation.
- Collaborating within an international research network and with industrial partners, contributing to publications, and mentoring junior researchers or students as appropriate.

Required Qualifications

- PhD (or near completion) in physics, photonics, quantum engineering, or a closely related discipline.
- Proven experience in quantum optics or optical experimentation, including data acquisition and analysis.
- Proficiency in Python (or similar programming languages) for experiment control and data processing.
- Strong communication skills and excellent command of written and spoken English.
- Demonstrated ability to work effectively both independently and as part of a collaborative research team.

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We Offer

- A dynamic and supportive research environment within a leading group in experimental quantum optics.
- Access to modern optical laboratories and advanced measurement facilities.
- Opportunities for international collaboration, professional development, and participation in industrial and academic partnerships.
- A chance to contribute to high-impact research at the forefront of quantum technologies.

You will find more information about FTMC here: