



CENTER FOR
QUANTUM-ENABLED
COMPUTING



HR EXCELLENCE IN RESEARCH

Postdoctoral researcher in Neutral Atoms Applications (f/m/x)

Ref. Number: MAB/29/2026

Location: Warsaw, Poland

Salary: 12 980–14 660 PLN/month gross (approx. 9 700 – 11 000 PLN/month net)

employment contract: 1 FTE; full social security and health insurance

Number of positions available: 1

Work Arrangement: Hybrid

The position is available as soon as possible, initially for one year, with the possibility of extension until the end of 2029 subject to satisfactory performance.

Keywords: neutral atoms, quantum control, quantum simulation, quantum optics, quantum information, many-body dynamics, hybrid quantum systems, quantum sensing

Important Dates:

1. Application deadline: **08.11.2026**.
2. Candidates will be informed about the results by the end of December.

Source of financing: Center for Quantum-Enabled Computing / Centrum Obliczeń Wspomaganych Kwantowo (FENG.02.01-IP.05-M032/25). The project is carried out within the International Research Agendas programme of the Foundation for Polish Science co-financed by the European Union under the European Funds for Smart Economy 2021-2027 (FENG).

About the project and us

The *Center for Quantum-Enabled Computing* project's overarching objective is to address several key challenges in the field of computing by paving the way to a verifiable, energy-efficient, reliable, and scalable computational advantage based on quantum systems.

Project's website: <http://c4qec.cft.edu.pl>

Successful candidates will join the newly created **Neutral Atoms Applications Group** led by **Dr. Piotr T. Grochowski**. The research activity of the group is centered on the two goals:

(i) Development of methods to model and control programmable quantum systems, especially neutral atoms in optical tweezers and Rydberg arrays. Possible topics include quantum state preparation, many-body dynamics, robust control under experimental constraints, and the use of atomic motion and hybrid degrees of freedom. Specific problems will be chosen in close connection with experimental developments.



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(ii) Exploration of applications in quantum simulation, information processing, sensing, and networking. The group will design protocols that account for decoherence, imperfect control, and limited measurement capabilities, and develop ways to characterize and validate their performance. Depending on the project, these methods may also be applied to related continuous-variable and hybrid quantum platforms.

The Center for Quantum-Enabled Computing is a part of the [Center for Theoretical Physics of the Polish Academy of Sciences \(CFT PAN\)](#) which is a research institute that conducts research in various fields of physics, including quantum information, research on the cosmos and gravitation, semiconductors, and atomic gases. The Institute's strategy is to employ the strongest scientists while giving them freedom in conducting research. The result is the high position of CTP PAS in Poland, publications at a world-class level (papers in Nature and Science), a large number of grants (more than 30 projects), and participation in international consortia.

The CTP PAS also hosts a number of scientific events, including seminars, workshops, and conferences, which are open to the public. The Institute also creates educational content accessible on its official [YouTube](#) channel.

About the role

We are seeking a postdoctoral researcher who will join the newly established Center for Quantum-Enabled Computing (within the structures of the [Center for Theoretical Physics of the Polish Academy of Sciences](#)) — the first scientific unit in Poland dedicated to the application of quantum effects in computing.

Your responsibilities will include:

- Implementation of the research tasks outlined in the proposal, as well as other tasks assigned by the project leader, using both analytical and numerical methods.
- Co-supervision of PhD and undergraduate students employed in the project.
- Dissemination of the obtained results (writing articles, presentations on scientific events).
- Participation in the scientific life of the institute, including the CTP PAS Colloquium and C4QEC seminar.

About you

Required qualifications, experience, and knowledge:

- **PhD degree in physics** (or a related discipline relevant to the research agenda); if not yet awarded, a supervisor's statement confirming the planned defense date is required.

The PhD must have been obtained no earlier than 2021.



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2. **At least one recommendation letter** about the candidate's past achievements and research potential written by senior researcher to be sent directly recruitment@cft.edu.pl.

The candidate is responsible for arranging for the letter to be submitted.

3. **Cover letter/motivation letter** with a brief description of the Candidate's scientific interests.
4. Copy of **PhD degree in physics** (or a related discipline relevant to the research agenda); if not yet awarded, a supervisor's statement confirming the planned defense date is required and the PhD must be obtained before the employment contract is signed.

The PhD must have been obtained no earlier than 2021 (i.e., within the last five years). This five-year period may be extended by all documented interruptions in academic work occurring after the PhD award date, provided that each interruption lasted at least six months. Documented interruptions may include, among others, unpaid leave, parental leave, long-term illness, employment in the R&D sector without involvement in scientific research, or employment outside the research sector. For women who have given birth to a child, and for individuals who have adopted a child, the five-year period is extended by one additional year for each child, regardless of the date of birth or adoption, even if the documented leave or interruption was shorter.

- 5. Signed Data Privacy Statement ([EN + PL - GDPR clause](#)).**

Only shortlisted candidates will be contacted.

Shortlisted candidates will receive an invitation for an interview which will be held at the Center or online.

How we recruit

We carefully review every submitted application. Those whose experience and competencies align with our needs and requirements are invited to an interview (usually held online).

We stay in touch with candidates throughout the entire process, ensuring that interviews take place in a friendly atmosphere, and providing feedback after the interviews. We approach each candidate individually, also considering the needs of people with disabilities.

We appreciate all feedback received after the recruitment process. It motivates us to improve our recruitment efforts.

Our commitment to Equality, Diversity and Inclusion

The CTP PAS operates in an all-inclusive environment irrespective of personal, physical, or social characteristics. Teamwork is highly valued, individual strengths are recognised and appreciated, and we are committed to advancing the careers of everyone.



C4QEC

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Equality, respect, and openness are fundamental values in an academic environment, where diversity is essential. We strive to provide a safe and inclusive space for everyone who is part of our scientific community.

The CTP PAS has regulations for reporting violations of law and protection of whistleblowers.



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