

Postdoctoral position in quantum algorithms and theory of quantum computing

Job Information

Organisation/Company	University of Latvia
Department	Centre for Quantum Computer Science
Research Field	Computer science » Other Physics » Quantum mechanics
Researcher Profile	Recognised Researcher (R2)
Country	Latvia
Application Deadline	20/02/2023 - 23:59 (Europe/Riga)
Type of Contract	Temporary
Job Status	Full-time
Offer Starting Date	1/9/2023
Is the job funded through the EU Research Framework Programme?	Not funded by an EU programme
Is the Job related to staff position within a Research Infrastructure?	No

Offer Description

Applications are invited for a postdoctoral position at the Centre for Quantum Computer Science, University of Latvia (<https://www.quantum.lu.lv>), lead by prof. Andris Ambainis. The Centre is among the strongest European research groups in quantum algorithms and currently consists of 18 researchers (including postdocs and graduate students). The centre is known for its work on quantum walks and other methods for quantum algorithms, quantum lower bounds and record-breaking separations between quantum and classical algorithms.

The postdoctoral researcher will be a part of the Latvian Quantum Initiative, a new partnership between academic institutions in Latvia recognized for research excellence in specific domains of quantum technologies <https://www.quantumlatvia.lu.lv/en/>. The initiative has been granted dedicated funding for development of research potential in quantum technologies.

We are looking for candidates who would contribute to the initiative in the area of quantum algorithms and quantum computer science. Possible research directions include:

- developing new quantum algorithms for problems in graph theory, optimization and machine learning;
- proving lower bounds on quantum algorithms;
- complexity-theoretic study of quantum algorithms and quantum communication protocols;
- development and implementation of experiments for near-term quantum computing.

We welcome candidates with a variety of backgrounds, including both quantum information/quantum computing researchers and classical computer scientists interested in exploring quantum computing.

The Centre is a part of several European research projects on quantum algorithms in a variety of settings (quantum algorithms for optimization, hybrid quantum-classical computation, quantum

algorithms for high energy physics) and the postdoctoral researcher will be able to collaborate with researchers in these projects.

The appointment would be for 2 years. The starting date is September 1, 2023 or later, depending on the preferences of the candidate.

Applicants should send their CV (including contact data of possible references) and a short description of research interests to Andris Ambainis (ambainis@lu.lv), by February 20, 2023. Late applications will be considered if the position is not yet filled.

Requirements

Research Field	Computer science » Other
Education Level	PhD or equivalent
Research Field	Mathematics » Discrete mathematics
Education Level	PhD or equivalent
Research Field	Physics » Quantum mechanics
Education Level	PhD or equivalent

Skills/Qualifications

research experience in theory of quantum computing or mathematical foundations of computer science

Languages	ENGLISH
Level	Excellent

Additional Information

Work Location(s)

Number of offers available	1
Company/Institute	Centre for Quantum Computer Science, University of Latvia
Country	Latvia
City	Riga
Postal Code	LV-1586
Street	Raina bulvaris 19

Where to apply

E-mail andris.ambainis@lu.lv

Contact

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