JOB OFFER

Position in the project:	Post-doc / Quantum Software Engineer
Scientific discipline:	Computer science / Physics / Mathematics
Job type (employment contract/stipend):	Full time employment contract
Number of job offers:	1
Renumeration/stipend amount/month *("X0 000 PLN of full remuneration cost, i.e., expected net salary at X 000 PLN"):*	15000 PLN Full renumeration costs. Expected **net salary** 10000 PLN (2300 Euro)
Position starts on:	01.09.2022 (starting date is flexible)
Maximum period of contract	31.12.2023
Institution:	Center for Theoretical Physics, Polish Academy of Sciences
Project leader:	dr hab. Michał Oszmaniec
Project title:	*National Supercomputing Infrastructure for EuroHPC - EuroHPC PL*
Project description:	The main goal of the project is to develop comprehensive library for characterization, certification, and error-mitigation of for near-term quantum computers (including prototypes of IBM quantum computers). We will design modules for effective characterization and mitigation of errors on these devices. We will use the latest scientific research in the field of quantum computing while being compatible with the Qiskit environment (in particular, Qisqit Terra and Ignis). The performance of obtained methods will be tested on paradigmatic quantum algorithms and quantum tasks carried out on real-life quantum hardware. This project is a part of a larger initiative aiming at providing access to quantum computers to the industry and scientific community in Poland. The resource-efficient characterization and error mitigation schemes will allow the use of the full potential of noisy and imperfect quantum computers both for research purposes and for potential practical applications such as quantum chemistry or combinatorial optimization problems.
Key responsibilities include:	• Conducting surveys of currently available methods of characterization and error mitigation on NISQ devices • Developing software for quantum characterization and error-mitigation on NISQ devices

	• Developing visualization packages for error mitigation and characterization • Designing proof-of-principle experiments for testing of the developed software • Preparation of progress reports and documentation for the project • Integration with Qiskit and other quantum programing environments
Profile of candidates/requirements:	• PhD (at the moment of starting of the position) in quantum information, quantum computation, mathematics, computer science or related fields • Strong publication/ project record in relevant discipline • Familiarity with basics of quantum computing, especially with the NISQ paradigm, basics of open quantum systems, generalized quantum measurements • Familiarity with basics of open quantum systems i.e. • Flexibility to work across different aspects of quantum software and underpinning theory • Programming experience (C ++, Python or Matlab), • Experience with quantum software development environments (e.g., Cirq, Qiskit, Forest)
Required documents:	• Curriculum vitae. • Research record with a list of publications, R&D and research and programming projects. • PDF files of up to five most important papers of the candidates; a list of talks at conferences and workshops, and a list of academic prizes and awards. • Motivation letter. • Signed RODO clause. • Name and contact details (e-mail addresses) of at least one senior researcher who may act as reference for the candidate (The candidate is expected to contact the reference and ask them to email reference letter to rekrutacja@cft.edu.pl. The letter must be sent before the deadline.).
We offer:	• Full-time employment for the period of one year with the possible further extensions (maximally for the period of up 16 months). • Working in the friendly and energetic environment of passionates of quantum computing (website of the group: www.quantin.pl) • Access to quantum hardware**: Rigetti, ION Q, IBM**
Please submit the following documents to:	Submissions are to be received electronically (only pdf files) at the email rekrutacja@cft.edu.pl by the closing

	date of **August 10, 2022.** In your e-mail's subject please add the reference number: **MO/14/2022.**
Application deadline:	12:00 CEST **10.08.2022**
	An interview is expected. Selection committee reserves the right to invite for the interviews only preselected candidates. The interviews will be held in the second half of July (the confirmation will be sent to the prospect candidates shortly after the application deadline). The seniority of the candidates will not be preferred by default. Instead, the selection committee we will evaluate the expertise of candidates having in mind their qualifications and achievements at the career stage they are at the moment. We inform you about the possibility of submitting an appeal against a negative result of the recruitment process, which the participant of the recruitment process is entitled to submit within 7 days of receiving the feedback from the recruitment committee.
Euraxess job offer	LINK DO EURAXESS

Information Clause – Job Recruitment

Information Obligation under the Article 13 of the RODO *:

1. **Data Administrator**

The administrator who is a deciding entity on how your personal data will be used is the Center for Theoretical Physics PAN represented by the Director with the seat in Warsaw Al. Lotników 32/46. You can contact the Administrator by using one of the contact forms available on the website: : http://www.cft.edu.pl/

2. **Data Protection Inspector**

The Director of the Center for Theoretical Physics of the Polish Academy of Sciences has appointed the Data Protection Inspector (Inspektor Ochrony Danych - IOD) with whom you can contact in all matters relating to your personal data. You can contact the Inspector by sending an email to: iod@cft.edu.pl

3. **The Purposes of Processing and the Legal Basis for Processing**

Your personal data will be processed for the purpose of running the current recruitment.
The basis for the processing of personal data are the provisions of the Labor Code Act of June 26, 1974 (uniform text: Dz. U. of 2018, item 917) and based on your consent for data processing.

4. **The Period of Storage of Personal Data**

Your personal data will be kept for the duration of the present recruitment.

5. **Data Recipients****

The recipients of your personal data will be only entities authorized to obtain personal data on the basis of the law. Access to your data is provided only to employees authorized by the administrator and associates who must have access to the data to perform their duties.

6. **Your Processing Rights**

You have the right to access your data and the right to correct it or limit processing, as well as the right to appeal against the processing.

7. **The Obligation to Provide Data and the Consequences of not Providing Data**

Providing your personal data specified in the Labor Code is obligatory, and for the remaining extent voluntary.

8. **The right to make a complaint to the President of the Office for the Protection of Personal Data**

When you feel that the processing of personal data violates the provisions of the general regulation on the protection of personal data, you have the right to make a complaint to the President of the Office for the Protection of Personal Data.

Consent to Data Processing

I consent to the processing of my personal data by the Center for Theoretical Physics PAN for the needs of:

☐ Present recruitment.

I provide the data voluntarily and I declare that they are truthful. I got acquainted with the contents of the above information, including information about the purpose and methods of processing personal data and the right to access my data and the right to correct them.

---

* Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46 / EC (general regulation on data protection)