https://ictqt.ug.edu.pl/job/phd-position-in-irap-project/

Competition results
competition results

PhD Student position for IRAP project – 2 positions

Description

PhD Student position for IRAP project

Project title: 'International Centre for Theory of Quantum Technologies'

[Project within the International Research Agenda programme of the Foundation for Polish Science]

We are looking for two PhD students to work in the International Centre for Theory of Quantum Technologies (ICTQT), funded by the Foundation for Polish Science, and hosted by the University of Gdańsk (UG) – pioneering and leading center of quantum information research in Poland.
ICTQT aim is to find new solutions and protocols for basic aspects of fundamental quantum physics, from new non-classical phenomena, measures of non-classicality, structural aspects of quantum theory, theory of quantum measurement, up to theory of open systems and quantum thermodynamics, and bring them into quantum technologies.
The ICTQT activity is focused on the scientific research in quantum foundations, quantum communication, quantum information, and development of quantum technologies with an emphasis on quantum communication and new computing techniques.
The Centre consists of 6 groups: Multiphoton Quantum Optics for Quantum Information (leader Marek Żukowski); New Quantum Resources (leader Paweł Horodecki); Foundational Underpinnings of Quantum Technologies (leader Ana Belen Sainz); New Quantum Resources and Thermodynamics (leader Michał Horodecki); Quantum Cybersecurity and Communication (leader Marcin Pawłowski); Quantum Open Systems in Relation to Quantum Optics (leader Łukasz Rudnicki).

In particular, the competition is aimed at scientists whose interests are in line with the research plan of the Quantum Open Systems in Relation to Quantum Optics Group led by Łukasz Rudnicki. Tentative goals of the PhD students will be to tackle fundamental problems related to quantum tomography, open system dynamics and geometric phase.

More about the research groups please find at: https://ictqt.ug.edu.pl/.

Responsibilities

1. Active scientific research.

Hiring organization
International Centre for Theory of Quantum Technologies

Employment Type
Full-time

Beginning of employment
October 1st, 2022 (for candidates who already have MSc degree and candidates who plan to defend their MSc thesis no later than July 31, 2022). For candidates who are already doctoral students the starting date is negotiable.

Duration of employment
up to 15 months

Industry
quantum physics

Job Location
Jana Bażyńskiego 1A, 80-309, Gdańsk, Poland

Base Salary
PLN 4500 (gross stipend, tax included)

Date posted
2022-06-10

Valid through
13.07.2022

2. Discussion and presentation of ideas and results with a diverse audience at ICTQT and at external events.
3. Participation in seminars, group meetings, and other activities of scientific exchange.
4. Participation in activities organized by ICTQT.

Qualifications

1. The candidate should hold a MSc degree in physics (preferable), computer science or mathematics.
2. The candidate should be interested in mathematical and conceptual foundations of quantum mechanics and quantum information, and related topics, especially those which are within the research agenda of ICTQT (visit https://ictqt.ug.edu.pl/).
3. The candidate should be committed to working collaboratively within an inclusive and diverse environment.
4. Basic knowledge of quantum information theory is appreciated.
5. Experience in programming (C++, Python or Matlab) is appreciated.

Job Benefits

1. Scholarship monthly 4500 PLN (gross stipend, tax included) until 31.12.2023.
2. Work in a rapidly developing, world-class research centre.
3. Scientific and organizational support.
4. Basic equipment and core facilities.
5. Friendly, inspiring, interdisciplinary environment, including “entanglement” with National Centre for Quantum Information (KCIK) and Institute for Theoretical Physics and Astrophysics (IFTiA) at UG.

Required documents

1. filled-in recruitment form;
2. curriculum vitae (including, e.g., awards and publications);
3. Optional: a research resume with a list of research projects in which the candidate took part (with specification of the role); PDF files of publications; list of talks at conferences and workshops, list of prizes and awards;
4. motivation letter (including statement of current scientific interests) – up to 2 pages;
5. documents confirming scientific degrees (copy of diploma);
6. name and contact details (e-mail addresses) to two senior researchers who may provide reference for the candidate (the candidate is expected to contact the referees and ask them to send reference letters directly to ictqt@ug.edu.pl. The letters must be sent before the deadline). ICTQT may also contact the referees directly to request the letters or to send reminders.

Recruitment process

General rules of the recruitment process:

1. The recruitment procedure has three stages:
   o Pre-selection candidates by the Selection Commission (SC), based on send documents;
   o Interview of pre-selected candidates by SC;
   o Recruitment to the UG Doctoral School of Natural Sciences (a formal UG procedure).
2. PhD student positions are offered to candidates who have received a MSc degree and who are already PhD students at other Universities/Institutions.
3. PhD student positions are also offered to candidates who plan to defend their MSc thesis no later than July 2022.

4. The decision will be made by the SC within 3 months from the date of recruitment completion.
5. SC reserves the right to invite for the interview only pre-selected candidates.
6. SC's decision is final and is not subject to appeal.
7. In the event of resignation from accepting the position of the selected candidate, the SC has the right to send the offer to the person placed on the reserve list, and in the absence of such a list, the SC has the right to reconsider the applications submitted to the competition and to indicate a new candidate.
8. SC reserves the right to close the competition without selecting the candidate.

Contacts

Please submit the documents via email to **ictqt@ug.edu.pl.**

International Centre for Theory of Quantum Technologies