

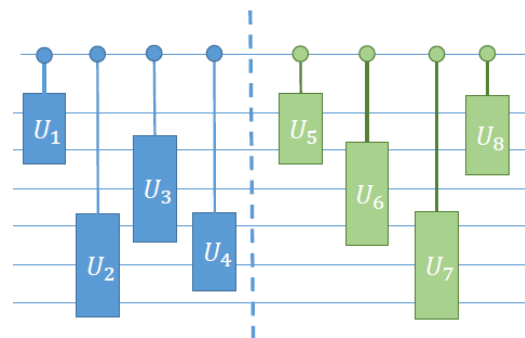
Ph.D. student position in the Quantum Information Theory

Project:

"Quantum information with restricted resources: classical simulation, extensions to universality and applications to cryptography and sensing" within the **Homing grant** from the Foundation for Polish Science. The project will be realized in the Quantum Information Center (KCik) at University of Gdańsk under the direction of **dr. Michał Oszmaniec**.

The main goal of the project is to study the power of quantum theory under the restrictions on the allowed ingredients used in the quantum information protocols. The emphasis will be put on experimentally and physically motivated restrictions on the allowed resources in systems consisting of bosons and fermions, as well as on the limitations in the measurements that can be used to probe quantum systems.

The project will be realized in collaboration with the group of prof. **Antonio Acin** (ICFO, Spain) and prof. **Michał Horodecki** (KCik).



Candidate's profile:

- M.Sc. degree in physics, mathematics or related field (as of September 2017)
- Interest in mathematical and conceptual foundations of quantum mechanics
- At least basic knowledge of quantum information theory.
- Optionally: experience in programming (C++, Python or Matlab)
- Wish to complete a Ph.D. thesis in physics or other field related to the scope of the project
- Interest in the subject and motivation to scientific work.

Application should include:

- Cover letter
- Curriculum Vitae
- Transcript of records from undergraduate studies
- Contact details of one or two referees

Candidate should expect:

- Salary of **4500 PLN** (non-taxed stipend) per month for 23 months with the possible extension within other project.
- To learn and develop tools and techniques of mathematical quantum information.
- 1 month per year internship at the Institute of Photonic Sciences in Barcelona, Spain.
- Participation in scientific schools and conferences.
- Participation in the vivid scientific activity of National Center for Quantum Information (KCik)

How to apply:

Applications should be submitted to dr. Michał Oszmaniec by e-mail: michal.oszmaniec@gmail.com not later than **28 May, 2017**.

All applicants are encouraged to contact dr. Michał Oszmaniec prior to the application deadline.