JOB OFFER

Position in the project:	student
Scientific discipline:	quantum information
Job type (employment contract/stipend):	stipend
Number of job offers:	2
Remuneration/stipend amount/month:	2 500 PLN/month
Position starts on:	01.11.2019
Maximum period of contract/stipend agreement:	01.11.2019 - 30.04.2021
Institution:	University of Warsaw, Faculty of Physics Warsaw, Poland
Project leader:	dr Jędrzej Kaniewski
Project title:	Robust certification of quantum devices Project is carried out within the Homing programme of the Foundation for Polish Science
Project description:	Our research focuses on the task of characterisation and certification of quantum devices based solely on the observed statistics. To achieve this we investigate scenarios in which quantum systems provide an advantage, e.g. Bell nonlocality, EPR steering or (quantum) random access codes. The project is implemented in a close collaboration with the group of prof. Nicolas Brunner at the University of Geneva.
Key responsibilities include:	1. Understanding the relation between the internal workings of a quantum device and the observable statistics.
	Identifying the correct mathematical formulation of the problem.









	 Proving rigorous statements about what can be deduced from the observed statistics (analytical methods guided by numerical calculations).
Profile of candidates/requirements:	 Good knowledge of linear algebra and matrix analysis. Familiarity with software packages to perform numerical calculations, e.g. Mathematica, Matlab, Python. Ability to solve simple optimisation problems (linear/semidefinite programming). Basic knowledge of quantum information is an advantage. Willingness to explore new topics and learn new tools.
Required documents:	 CV Cover letter
We offer:	 Opportunity to work in a young and active field of theoretical physics. Participation in schools and other training events. Opportunity to collaborate with leading groups based at world- class institutions.
Please submit the following documents to:	jkaniewski@fuw.edu.pl
Application deadline:	15.10.2019
For more details about the position please visit (website/webpage address):	http://www.jkaniewski.eu/

Please include in the application the following clause:

"I hereby give consent for the personal data included in my application to be processed by University of Warsaw for recruitment purposes in regards to this position."







