



Institute of Physics of the Polish Academy of Sciences

OPEN POSITION



Job ID: #JOB21/2018

Job Description

Job Title: Post-Doc in Quantum and Topological Photonics

Job Summary:

Institute of Physics, Polish Academy of Sciences calls for applications for an open Post-Doc position in the EU Quant-ERA project InterPol. It is expected that the post-doc will spend at least **6 months** researching at **University College London**.

The Post-Doc will be involved in the development of topological phases and many-body quantum theory in solid state systems of exciton-polaritons. The project is realized jointly with world-leading theoretical and experimental groups from UK, France, Germany and Israel. For description visit <https://www.quantera.eu/co-funded-call/funded-projects/44-interpol>.

Job Description:

Exciton-polaritons are quantum quasiparticles composed of photons, electrons and holes. The combination of these components allows to exploit the best properties of both light and matter: strong interactions mediated by exciton component, and the excellent transport properties of light. This makes exciton-polaritons excellent candidates for the development of quantum simulators, which are expected to surpass classical computers in the solution of certain hard problems, design of complex quantum materials, and the development of new drugs. In this project, we aim for the demonstration of the world-first polariton quantum simulator, an entirely new platform for Quantum Simulation.

IP PAN: www.ifpan.edu.pl/polariton

UCL: www.ucl.ac.uk/~ucanmhs

Profile of candidates for the Post-Doc position:

1. A PhD degree (or PhD thesis submitted), obtained no earlier than 7 years before the beginning of the contract (calculated according to the official rules of NCN UNISONO, appendix to the resolution 114/2016 from 7 December 2016),
2. Strong background in a related field demonstrated by publications,
3. Experience in numerical modeling of quantum systems,
4. Ability to work in a team as well as independently,
5. Fluent spoken and written English.

Main research field: Physics

Sub Research Field: Condensed matter physics

Career Stage: Experienced researcher or 4-10 yrs (Post-Doc)

Research Profile ([details](#)): Recognised Researcher (R2)

Type of Contract: Temporary 24 months

Status: Full-time

Salary: From 7000 to 8000 PLN per month (before taxes). The Postdoc will receive additional support of up to 75 GBP/day during visits at UCL to account for the costs of accommodation and living expenses.

Contact

More information can be obtained from dr hab. Michał Matuszewski (e-mail: mmatu@ifpan.edu.pl).

Application details

Application deadline: 15 June 2018 **Later applications may also be considered.**

Required materials:

- Signed Application
- Curriculum Vitae including a list of publications
- Written self-presentation, limited to a single A4 page
- Names and contact informations of two researches who agreed to write a recommendation letter

All materials should be submitted in electronic form simultaneously to the addresses: jobs@ifpan.edu.pl and mmatu@ifpan.edu.pl with Job ID in the subject.