



Institute of Physics of the Polish Academy of Sciences

OPEN POSITION



Job ID: (#JOB47/2018)

Job Description

Job Title: Post-Doc in Topological Photonics

Job Summary:

Institute of Physics, Polish Academy of Sciences calls for applications for an open Post-Doc position in the National Science Center project “New quantum states in polaritonic fluids of light”. The Post-Doc will be involved in the development of topological states in solid state systems of exciton-polaritons.

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. The goal of the project is to propose a way for obtaining topological quantum states in the light-matter system by a novel method which involves exploiting the nonequilibrium, open nature of polariton systems. Topological states are currently at the forefront of theoretical and experimental condensed matter physics, but implementation at optical wavelengths and room temperature is still lacking. We will make use of the natural properties of microcavity exciton-polaritons to design a viable and realistic system for topologically protected defect states.

www.ifpan.edu.pl/polariton

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, resolution of NCN 26/2015 from 12 march 2015.),
2. Theoretical background in a related field, preferably in exciton-polariton physics, demonstrated by publications,
3. Experience in numerical modeling,
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 18 months

Status: Full-time

Salary: 10 000 PLN per month (including taxes and social insurance costs).

Contact

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

Application details

Application deadline: 15 October 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 to **both email addresses:** jobs@ifpan.edu.pl and mmatu@ifpan.edu.pl with Job ID in the subject.