



**Job ID: #JOB 6/2021**

## Job Description

**Job Title:** Post-Doc in theoretical exciton-polariton physics

**Job Summary:**

Institute of Physics, Polish Academy of Sciences calls for applications for a Post-Doc position in the OPUS project realized in collaboration with the University of Warsaw. The Post-doc will contribute to the development of machine learning methods in polariton systems.

**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 neuromorphic computing with photons, which are expected to surpass conventional computers in the solution of machine learning problems in terms of speed and energy efficiency. The aim of the project is to design theoretically and realize experimentally an all-optical artificial neural network based on exciton-polaritons in optical microcavities.

We seek for candidates with strong background in numerical modeling of exciton-polariton quantum fluids and experience with machine learning using exciton-polaritons.

IP PAN: [www.ifpan.edu.pl/polariton](http://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, appendix to the resolution 49/2020 from 29 April 2020),**
- 2. Strong background in theoretical exciton-polariton research,**
- 3. Experience in theoretical and numerical modeling of exciton-polariton systems, including machine learning,**
- 4. 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 12 months

**Status:** Full-time

**Salary:** Depends on qualifications

From 7 000 to 8 000 PLN per month (before taxes).

## Contact

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

(Add additional information if needed. Otherwise leave empty.)

## Application details

**Application deadline:** 17 February, 2021

**Applications after deadline are not considered.**

**Required materials:**

- **Curriculum Vitae**
- **List of publications**
- **Motivation letter**
- **Contact data (e-mail) to at least two potential referees.**
- **Consent to process your personal data (expressed on the form attached to this announcement)**

• (Add additional requirements if needed; multi-line possible. Otherwise leave empty.)

All materials should be submitted in electronic form to the address: [jobs@ifpan.edu.pl](mailto:jobs@ifpan.edu.pl) with Job ID in the subject.

## DATA PROCESSING UNDER CONSENT FOR THE PURPOSES OF RECRUITMENT

Under Art. 13 sections 1 and 2 of the Regulation of the European Parliament and of the Council (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Resolution), EU OJ L 119 of 04.05.2016, page 1, as amended, hereinafter referred to as "GDPR", we hereby inform as follows:

1. The Data Controller of the provided personal data is the Institute of Physics of the Polish Academy of Sciences, Al. Lotników 32/46, 02-668 Warsaw, phone (22) 116-2111, e-mail [director@ifpan.edu.pl](mailto:director@ifpan.edu.pl).
2. Contact details to the Data Protection Officer are as follows: e-mail [iodo@ifpan.edu.pl](mailto:iodo@ifpan.edu.pl)
3. Your personal data shall be processed for the purpose of carrying out the recruitment process for the position of .....
4. Processing of your personal data in scope of: full name, date of birth, correspondence address, information about education and course of past employment shall take place under Art. 22<sup>1</sup> § 1 of the Act of 26 June 1974 - Labour Code. In the scope in which you sent to us more personal data than indicated above, we process your data under the consent granted by you.
5. Your personal data shall be stored for 1 month from completion of the recruitment process. If you grant consent for processing of personal data for future recruitments, we shall process your data until withdrawal of the consent by you, however, no longer than for the period of 6 months from the day of submittal of the application by you.
6. Provision of the abovementioned data in the scope indicated above is a statutory requirement resulting from Art. 22<sup>1</sup> § 1 of the Act of 26 June 1974 - Labour Code, in the remaining scope it is voluntary. Failure to provide the data referred to in Art. 22<sup>1</sup> § 1 of the Act of 26 June 1974 - Labour Code precludes consideration of your candidacy for the offered position.
7. You have the right to access your personal data, to rectify them, erase them, restrict their processing.
8. You may submit a complaint to the Inspector General for the Protection of Personal Data.
9. You have the right to withdraw the consent to process your personal data in the scope in which they were provided at any time. Withdrawing the consent does not affect the lawfulness of processing carried out on the basis of consent before its withdrawal.

Consent content:

*I grant my consent to the Institute of Physics of the Polish Academy of Sciences to process my personal data contained in the sent recruitment documents for the purpose of carrying out the recruitment process for the position of .....*

If you want us to consider your candidacy also in the future recruitment processes, please grant the additional consent:

*I grant my consent to the Institute of Physics of the Polish Academy of Sciences to process my personal data contained in the sent recruitment documents in future recruitment processes taking place during 6 months from the day of appearance of this job advertisement.*