



# Institute of Physics of the Polish Academy of Sciences Scholarship for a MSc Student



**Job ID: #JOB109/2023**

## Job Description

**Job Title:** student – scholarship holder

### Job Summary:

Bell correlations with spin-1 Bose-Einstein condensates

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The main focus of this project is to explore theoretically Bell correlations with spin-1 Bose-Einstein condensates (BECs). The aim is to define protocols for the certification of Bell correlations for such systems with more than two measurement outcomes and to establish the experimentally relevant Bell tests. The project will be performed in close collaboration with the experimental group of Prof. Li You from Tsinghua University in China under the joint project SHENG. The successfully identified in the project Bell tests will be experimentally verified with ferromagnetic spin-1 BEC of rubidium-87 atoms realized in a laboratory by the Chinese team.

### Requirements:

- knowledge of quantum physics, previous experience with ultra-cold atoms or quantum optics will be an advantage,
- numerical skills and willingness to learn new computational techniques,
- good spoken and written English,
- student of physics at University level

**Main research field:** Physics

**Sub Research Field:** theory, ultra-cold atoms

**Career Stage:** Early stage researcher or 0-4 yrs (pre-graduate)

**Research Profile (details):** First Stage Researcher (R1)

**Type of Contract:** Fixed term (12 months)

**Status:** Full-time

**Salary:** grant funding of **1500** PLN per month, before subtracting obligatory employer and employee social security contributions (~15%).

## Contact

More information can be obtained from

Emilia Witkowska (e-mail: [ewitk@ifpan.edu.pl](mailto:ewitk@ifpan.edu.pl))

<https://sites.google.com/site/ewitk/>

Please make contact.

## Application details

**Application deadline: 14.01.2024.** Later applications will not be considered.

**Required materials:**

- Scientific CV
- Cover letter
- Academic record (for finalized semesters)
- Recommended: A recommendation letter by an academic, or their contact email.
- Consent to process your personal data

All materials should be submitted in electronic form to the address:

[rekrutacja@ifpan.edu.pl](mailto:rekrutacja@ifpan.edu.pl) with Job ID in the subject.

### Information clause – scholarship competition

Pursuant to Article 13 paragraphs 1 and 2 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals 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 Regulation) Official Journal of the European Union, L 119, 4 May 2016, page 1, as amended, hereinafter referred to as “GDPR”, we hereby inform as follows:

1. The Institute of Physics of the Polish Academy of Sciences with its registered office in Warsaw, Al. Lotników 32/46, represented by its Director, is the Controller, i.e. an entity deciding about how your personal data will be used. You may contact the Controller using one of the contact forms available on the website: tel. (22) 116-2111, e-mail: [director@ifpan.edu.pl](mailto:director@ifpan.edu.pl)
2. The Director of the Institute of Physics of the Polish Academy of Sciences has appointed the Data Protection Officer (DPO), whom you may contact in matters relating to your personal data, by sending an email to the following address: [iodo@ifpan.edu.pl](mailto:iodo@ifpan.edu.pl)
3. Your personal data will be processed in connection with your participation in the scholarship competition and if you win the competition, in connection with receiving the scholarship – on the basis of your consent – Article 6 paragraph 1 item a GDPR.
4. Your personal data will be processed for a period of 6 months after the end of the scholarship competition and in the case of receiving the scholarship – for a period resulting from legal and tax regulations;
5. Your personal data will be made available to other entities that can finance and settle the scholarship granted and entities authorized under provisions of law. Your data will only be accessed by people authorized by the Controller;
6. Provision of your personal data is mandatory; in the event of failure to do so, you will not be able to participate in the scholarship competition;
7. You have the right to access your data, the right to rectify it and limit processing thereof;
8. You have the right to lodge a complaint to the President of the Office for Personal Data Protection, if you consider that the processing of your personal data violates provisions of the General Data Protection Regulation.

#### Consent to processing:

I hereby consent to the processing of my personal data contained in the application/request form by the Institute of Physics of the Polish Academy of Sciences to conduct the scholarship competition and in the case of being granted the scholarship, to pay and settle it. I provide my personal data voluntarily and I declare that it is accurate. I have read the content of the information clause.

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Date and signature