Institute of Physics of the Polish Academy of Sciences

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Job ID: JOB 29/2024

Job Description

Job Title: Physicist

Job Summary:

The winning candidate will work at the [International Centre for Interfacing Magnetism and Superconductivity with Topological Matter - MagTop](#) of the Institute of Physics of the Polish Academy of Sciences and prepare his/her MSc thesis. The job is related to theoretical search for quantum anomalous Hall effect in IV-VI topological heterostructures.

Job Description:

Background: The quantum anomalous Hall effect (QAHE) is a relatively new quantum phenomenon first discovered in a special class of topological materials that are magnetic. As well as being fascinating from a fundamental science point of view, it hold the promise of building a new type of resistance standard that, unlike standards based on the quantum Hall effect, will not require high magnetic fields to operate. Moreover, for this reason, in the future it can also be used in tandem with a voltage standard based on the Josepshon effect to build new quantum kilogram and ampere standards.

Aim: The aim of the project is to find theoretically structures of IV-VI magnetic compounds that would show QAHE. The main theoretical method will be multiband effective mass approach and tight binding theory with parameters from previous experimental studies or provided by in-house *ab initio* codes.

Requirements:

- A bachelor degree in physics or in related fields, such as e.g. materials engineering and electronics, is required (or an equivalent that qualifies one for MSc studies in physics or materials engineering in the country of issue),
- MSc student in physics or a related discipline,
- Student status at a domestic or foreign university is required during the period of employment. The candidate must be majoring in physics or a related discipline,
- Prior experience of in the physics of semiconductor nanostructures is desired but not required,
- Very good knowledge of English is required

Main research field: Physics

Sub Research Field: Condensed matter physics, Nanotechnology

Career Stage: Bachelor's degree in physics, MSc student.

Type of Contract: employment for a fixed term of 12 months, including a 3-month probationary period.

Status: Part -time employee hired at 1/3 of full-time contract

Salary: The person will be employed as a research assistant in a 1/3 full time position for a period of maximum 12 months (with all employee benefits and an additional medical insurance package) with a gross salary of PLN 3 069 per month, which is approximately PLN 2350 net/month. The MagTop project (FENG.02.01-IP.05-0028/23) is implemented as part of the MAB FENG action of the Foundation for Polish Science co-financed by the European Union from the 2nd Priority funds of the Programme European Funds for Smart Economy 2021-2027 (FENG).

Contact

More information can be obtained on https://magtop.ifpan.edu.pl/
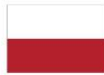or Prof. Tomasz Dietl (e-mail: dietl@MagTop.ifpan.edu.pl);

Application details

Application deadline: 31.08.2024. Later applications will not be considered.

Required materials:
- Scientific CV,
- Cover letter,
- Scan of Bachelor diploma or equivalent (or an explanation of when one is expected),
- Academic record (for finalized semesters),
- Copies of documents proving that the candidate is a student of Master's level studies,
- Recommended: A recommendation letter by an academic or their contact email,
- A statement by the candidate of consent to the processing of personal data for the purposes of recruitment (as below).

All required materials for the position must be sent in electronic form to open_positions@MagTop.ifpan.edu.pl and rekrutacja@ifpan.edu.pl with the Job ID# as a 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.
2. Contact details to the Data Protection Officer are as follows: e-mail iodo@ifpan.edu.pl
3. Your personal data shall be processed for the purpose of carrying out the recruitment process for the position of physicist.
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. 22^1 § 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. 22^1 § 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. 22^1 § 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 physicist.*

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.*