

## Competition for a student scholarship as part of the NCN SONATA BIS 12 project

**Project title:** Study of neutrino oscillations in the improved Super-Kamiokande detector

**Project leader:** dr Magdalena Posiadała-Zezula

**Unit name:** University of Warsaw, Faculty of Physics,

**Number of positions:** 1

**Duration:** 48 months

**Starting date:** October, 1, 2024

**Scholarship:** 4000 PLN gross (the net amount depends on deductions specified in Public Law, calculated individually)

The scholarship is awarded in accordance with the rules contained in the Regulations on granting scientific scholarships in research projects financed by the National Science Center, introduced by the resolution of the Council of the National Science Center No. 25/2019 on March 14, 2019.

### Project description:

Research work will be carried out at the Department of Particles and Fundamental Interactions of the Institute of Experimental Physics, Faculty of Physics, University of Warsaw, as part of the NCN project "Study of neutrino oscillations in the improved Super-Kamiokande detector", headed by dr Magdalena Posiadała-Zezula. The project concerns the search for the hierarchy of neutrino masses based on studies of atmospheric neutrino oscillations and neutrinos from the Tokai-2-Kamioka (T2K) beam in the Super-Kamiokande detector. Under the supervision of the project leader, the scholarship holder will conduct research on the methods of reconstruction and selection of neutrino interactions, taking into account information from the capture of neutrons by gadolinium, the salt compounds of which are currently dissolved in the Super-Kamiokande detector. Qualified student will deal with the combined analysis of data from the Super-Kamiokande detector for atmospheric neutrinos and neutrinos from the T2K beam.

The successful applicant will be enrolled at the University of Warsaw [Doctoral School of Exact and Natural Sciences](#), and will be obliged to follow its [programme](#) of studies, and will have teaching duties of 180 teaching hours over a period of four years.

## Main tasks:

- understanding and usage of the oscillation analysis tools: for atmospheric neutrinos at Super-Kamiokande and T2K beam neutrinos,
- studies on T2K -SK joint fit analysis and neutrino mass ordering,
- studies of the systematic uncertainties needed for the analyses at Super-Kamiokande.

## Requirements:

- the candidate should have the status of a Ph. D. student before the project starts. The successful candidate can be admitted to the Doctoral School of Exact and Natural Sciences beyond standard limits and schedule
- education background allowing to follow courses of the Doctoral School of Exact and Natural Sciences
- M.Sc. or equivalent in high energy physics or related field before the project starts
- programming skills in C++ (additional Python experience would be a bonus)
- experience of work in a big experimental collaboration and experience in data analysis in high energy physics would be bonuses

## Required documents:

1. a scan of signed cover letter with information on the processing of personal data - information and consent clauses, available in the attachment and under URL:  
[https://bsp.adm.uw.edu.pl/wp-content/uploads/sites/18/2021/01/Kluczula-informacyjna-przy-rekrutacji-do-pracy\\_11\\_2019\\_EN.docx](https://bsp.adm.uw.edu.pl/wp-content/uploads/sites/18/2021/01/Kluczula-informacyjna-przy-rekrutacji-do-pracy_11_2019_EN.docx)
2. CV with information on the research activity, achievements and awards as well as scientific interests
3. a list of conference presentations and publications including internal experiment notes where candidate had important contributions
4. if possible a Master thesis final version or a mature draft
5. at least one recommendation letter to be send **by the author of the list directly to**  
[Magdalena.Posiadala@fuw.edu.pl](mailto:Magdalena.Posiadala@fuw.edu.pl)
6. master diploma scan. In case of positive application outcome a sworn translation of diplomas issued in languages other than Polish or English would be required. Candidates holding diplomas issued by countries outside EU, EFTA and states signing Convention on the Recognition of Qualifications concerning Higher Education in the European Region should provide a certification of their diploma in Poland. More details can be found here:

<https://nawa.gov.pl/en/recognition/recognition-for-academic-purposes/applying-for-admission-to-doctoral-studies>

**We offer:**

- work in an experienced team
- stable, four year, financing, during the whole period of doctoral studies.
- position based in Warsaw with frequent trips to Japan

**Deadline for submitting documents:** 20.08.2024

**Application submission form:** via e-mail to [Magdalena.Posiadala@fuw.edu.pl](mailto:Magdalena.Posiadala@fuw.edu.pl),

Selected candidates will be asked for a remote interview. The recruitment procedure will be finished before September, 10, 2024. In the event of the resignation of the selected candidate, the right to indicate the next candidate from the ranking list is reserved.

For further information, please contact Magdalena Posiadała-Zezula

[Magdalena.Posiadala@fuw.edu.pl](mailto:Magdalena.Posiadala@fuw.edu.pl)

.....  
given and family name

## **Information on personal data processing**

### **Controller**

Controller of your personal data processed in connection with the recruitment process is the University of Warsaw, ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa, as the Employer.

Contact with the controller:

- by traditional mail at: University of Warsaw, ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa (name the organizational unit to which your letter is addressed);
- by phone: 22 55 20 355.

### **Data Protection Officer (DPO)**

Controller has designated Data Protection Officer whom you may contact via email at [iod@adm.uw.edu.pl](mailto:iod@adm.uw.edu.pl). You may contact the DPO in all matters relating to your personal data processing by the University of Warsaw and the exercise of rights in relation to the processing of personal data.

The DPO, however, does not proceed other matters, like handling recruitment procedures, collecting recruitment documents, providing information on current recruitment process.

### **Purpose and legal grounds of data processing**

Personal data of candidates for employment shall be processed for recruitment purposes only.

Your personal data shall be processed in the scope as indicated by employment law<sup>1</sup> (*given name (names) and family name, date of birth, contact information as provided, education, professional qualifications, previous employment*) for the purposes of this recruitment process<sup>2</sup>, whereas other data<sup>3</sup> shall be processed based on your consent which may take the following wording:

*I agree to the processing of personal data provided in .... (e.g. CV, cover letter, and other submitted documents) by the University of Warsaw for realising my recruitment process.*

If your documents include data as mentioned in Art. 9 section 1 of the GDPR (special categories of personal data), processing shall be possible upon your consent to processing such data<sup>4</sup> which may take the following wording:

*I agree to the processing of special categories of personal data, as mentioned in Art. 9 section 1 of the GDPR, provided in ..... (e.g. CV, cover letter, and other submitted documents) by the University of Warsaw for realising my recruitment process.*

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<sup>1</sup> Art. 22<sup>1</sup> of the law of June 26, 1974 Labour Code (i.e. Journal of Laws 2019 item 1040 with subsequent changes);

<sup>2</sup> Art. 6 section 1 letter b of the Regulation of the European Parliament and the Council (EU) 2016/679 of April 27, 2016 on protection of individual persons with regard to the personal data processing and on the free flow of such data, and also repealing Directive 95/46/EC (general regulation on data protection) (Official Journal EU L 119 of 04.05.2016, page 1, with subsequent changes) (hereinafter as the GDPR);

<sup>3</sup> Art. 6 section 1 letter a of the GDPR;

<sup>4</sup> Art. 9 section 2 letter a GDPR;

The University of Warsaw shall be also processing your personal data in future recruitment processes upon your consent<sup>5</sup> which may take the following wording:

*I consent to processing of my personal data for the purposes of any future recruitment processes at the University of Warsaw for the period of the next nine months.*

You may revoke all such consents at any time by, for example, sending an email at [Magdalena.Posiadala@fuw.edu.pl](mailto:Magdalena.Posiadala@fuw.edu.pl)

Be advised that the revocation of your consent does not affect legal compliance of processing which had been completed upon consent before its revocation.<sup>6</sup>

### **Data retention period**

Your personal data collected in this recruitment process shall be stored over the period of three months from the date the recruitment process is completed.

In case you agree to process your data in future recruitments, your data shall be used over the period of nine months.

### **Data recipients**

Officers authorized by the Controller shall have access to your personal data, the processing of which is in the scope of their duties.

Recipients of personal data may be other subjects obligated by the Controller to provide specific services involving data processing, like members of the selection committee.

### **Data transfer outside the European Economic Area (EEA)**

Your personal data shall be disclosed to subjects authorized by law. Signing-in is through Google Forms. Your personal data may be also processed by our provider of G-Suit for education by Google Company in their data processing centres.<sup>7</sup> Your data shall be protected under the standards of the Privacy Shield, accepted by the European Commission.<sup>8</sup> This shall guarantee an adequate level of data security.

### **Rights of the data subject**

Under the GDPR data subjects have the following rights:

- to access data and to receive copies of the actual data;
- to correct (rectify) your personal data;
- to restrict processing of personal data;
- to erase personal data, subject to provisions of Art. 17 section 3 of the GDPR;
- to file a claim with the President of the Personal Data Protection Office, if you believe data processing violates law.

### **Information on the requirement to provide data**

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<sup>5</sup> Art. 6 section 1 letter a GDPR;

<sup>6</sup> Art. 7 section 3 GDPR;

<sup>7</sup> <https://www.google.com/about/datacenters/inside/locations/index.html>

<sup>8</sup> <https://www.privacyshield.gov>

Providing your personal data in the scope resulting from law is necessary to participate in the recruitment process. Providing other personal data is voluntary.

.....  
place and date

.....  
applicant's signature