



INSTITUTION: National Centre For Nuclear Research (NCBJ)

CITY: Warsaw

POSITION: **PhD student scholarship – Smashing galaxies into dust**

DISCIPLINE: astronomy, physics

POSTED: 16.07.2024

EXPIRES: 05.08.2024

WEBSITE: <https://www.ncbj.gov.pl/en/praca/phd-student-scholarship-smashing-galaxies-dust>

KEY WORDS: Astronomy, Astrophysics, Galaxies, Galaxy evolution, Machine learning, Galaxy morphology

The National Centre for Nuclear Research (NCBJ) in Warsaw invites applications for a 33 months PhD scholarship financed by NCN project SONATA 19 - "Smashing galaxies into dust".

Description:

In this PhD project, the successful applicant will compare existing merger identification methods. The student will compare machine learning methods with the more classical morphological parameter selection. This will show, for the first time, which of these methods is the most reliable. The PhD student will also develop their own methods to identify galaxy mergers, which can consistently identify mergers in different survey data. This project will use state of the art observations from the Hyper Suprime-Cam and Euclid as well as data from the latest large cosmological simulations. As our team is an active member of LSST, the PhD student will be perfectly placed to apply their methods to create the first merger identifications for LSST.

Requirements:

- Master's degree in astronomy, astrophysics, physics or a related field.

Additional assets:

- Knowledge of python programming language



We offer:

- Employment in one of the largest research Institute in Poland
- Good learning environment. Support of an experienced team
- Excellence with full research autonomy and being part of a diverse and supportive team of professionals
- External and internal trainings in hard and soft skills as well as participation in conferences
- Personal and professional development with diverse range of tasks and challenges
- Funding for external and internal trainings

Contact: Dr. William Pearson E-mail: William.Pearson@ncbj.gov.pl

Required documents:

- Curriculum Vitae
- a scan/ copy of degree diploma
- any other possible documents that might influence the assessment
- a cover letter that explains the motivating factors for considering the position (max. 1 pp)

As an attachment to your application please sign and enclose the following declaration:

„I hereby authorize you to process my personal data included in the job application for the needs of the recruitment process in accordance with the Personal Data Protection Act dated 29.08.1997 (uniform text: Journal of Laws of the Republic of Poland 2002 No 101, item 926 with further amendments).”

The application procedure:

Candidates should apply for this position through the registration system of the Graduate School of Physics at NCBJ (<http://gradschool.ncbj.gov.pl/>) and choose the physics research topic No 7 under the name “Reliably identifying merging galaxies in large surveys”.

To be considered for a PhD position, the candidate should first pass the entry exam in physics (in English or Polish).

Only the applicants that passed the exam will be qualified for the second stage of the recruitment.

For more information about the Graduate School admission rules please check

<https://gradschool.ncbj.gov.pl/overview-2/>

Date of notification of the results: 01|09|2024

Starting date of the contract: 01|10|2024



Additional comments:

Submitted documents will not be returned. We will contact selected candidates.

Information in accordance with Article 13 RODO on the processing of personal data:

1. The Personal Data Controller of your personal data is the National Centre for Nuclear Research (hereinafter referred to as Controller or NCBJ) with its registered office in Otwock, 7 Andrzej Sołtan Street, 05-400 Otwock.
2. Your personal data will be processed for recruitment purposes on the basis of applicable law, including the Labour Code. Data not required by law, provided by you in your documents, will be processed on the basis of your consent. Your consent is given by the transfer of this data.
3. The full content of the information clause of Article 13 RODO is available at <https://www.ncbj.gov.pl/en/information-clause-personal-data-processing>



HR EXCELLENCE IN RESEARCH

The National Centre for Nuclear Research is awarded by “HR Excellence in Research”. Recruitment is based on OTM-R system (Open, Transparent and Merit-based recruitment practices in Research Performing Organisations).