



INSTITUTION: National Centre For Nuclear Research (NCBJ)

CITY: Warsaw

POSITION: **Professor of the Institute at The Theoretical Physics Division (BP2)**

DISCIPLINE: physics

POSTED: 06.12.2024

EXPIRES: 05.02.2025

WEBSITE <https://www.ncbj.gov.pl/en/praca/professor-institute-bp2>

KEY WORDS: physics

The National Center for Nuclear Research opens a competition for

**Professor of the Institute
at The Theoretical Physics Division (BP2)**

Localization: Warsaw, Pasteura 7

Description of tasks:

- Theoretical analysis of the connections between dark matter (DM) production, reheating of the Universe, and baryogenesis.
- Studying the evolution of DM at the level of phase-space distribution functions, accounting for non-equilibrium effects.
- Developing the DRAKE tool, including its extension to multi-component scenarios and more realistic models.
- Analyzing cosmological processes in various extensions of the Standard Model, including: non-equilibrium effects, the impact of deviations from the standard cosmological model, thermodynamics of the dark sector.
- Investigating DM production in freeze-out and freeze-in processes, as well as during reheating.
- Performing phenomenological analysis of models in terms of astrophysical and cosmological observations, as well as their falsifiability.

Requirements:

- Habilitation degree in the field of physical sciences.
- Proven experience in leading scientific projects, supported by awarded research grants.
- Completion of international postdoctoral fellowships.
- Proficiency in English.



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
- A chance to make ones' own mark by participation in the creation of a interesting and ambitious projects
- Work in Polish and international networks with research institutes and industrial companies.
- Personal and professional development with diverse range of tasks and challenges.
- Employment based on an employment contract.
- Stable working conditions without overtimes and friendly atmosphere.
- Additional annual salary and other social security benefits.
- Company transport from Warsaw to Świerk and backwards (more information: <https://bus.swierk.pl/rozklad-jazdy/>).
- Funding for external and internal trainings.
- Working with cutting edge technology at one of the largest supercomputer centers in Poland.

Documents required:

- Curriculum Vitae
- Full publication list
- A research statement
- Two reference letters, prepared at the request of the candidates and submitted directly by the authors before the application deadline.
- A scan/ copy of degree diploma
- Any other possible documents that might influence the assessment
- A brief description of important scientific achievements and scientific outlook (max. 2 pp)
- A cover letter that explains the motivating factors for considering the position (max. 1 pp)

Contact: Michał Kowal e-mail: michal.kowal@ncbj.gov.pl

Please send your applications in the electronic form in English: michal.kowal@ncbj.gov.pl

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

I agree for my personal data included in the application documents to be processed by National Centre for Nuclear Research with its registered office in Otwock, 7 Andrzej Sołtan Street, 05-420 Otwock, for a period of 12 months from their submission, in order to carry out future recruitment processes.

At NCBJ there is the internal procedure for the report of breaches of law. Anyone interested in its content can access it at any time on the website:

<https://www.ncbj.gov.pl/sites/default/files/prasa/INTERNAL%20NOTIFICATION%20PROCEDURE.pdf>

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.



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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>



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