FORM FOR EMPLOYERS

INSTITUTION Nicolaus Copernicus Astronomical Center (NCAC))

CITY Warsaw

POSITION Postdoc

DISCIPLINE Astrophysics

POSTED 2025-12-11

EXPIRES 2025-12-31

WEBSITE https://www.camk.edu.pl/pl/archiwum/2025/12/03/postdoctoral-position-in-modelling-astrophysical-sources-of-gravitational-waves/

KEY WORDS :astrophysical sources, gravitational waves

DESCRIPTION : Nicolaus Copernicus Astronomical Center of the Polish Academy of Sciences (CAMK PAN) announces the competition for one post-doc position in modelling astrophysical sources of gravitational waves. We are looking for a candidate with experience in relativistic astrophysics of compact objects, in particular structure of neutron stars interiors, applied to gravitational wave astronomy. The winner of the competition will conduct research within the OPUS project entitled "Calm before the storm: rethinking the gravitational-wave analysis toolbox in the face of future challenges" (nr 2021/43/B/ST9/01714), in cooperation with Prof. Michał Bejger and collaborators.

Research tasks include development of astrophysical models of gravitational wave sources, in order to apply them in data analysis and assess their features. Specifically, the project focuses on compact objects and their internal composition, information related to populations of such objects, e.g., mass distributions, radii, tidal deformations, and implementation in the data analysis of long-duration gravitational wave signals (not necessarily strictly persistent) to investigate, which theoretically considered features of these objects will be possible - or impossible - to reliably evaluate with detectors in the near and distant future, as well as what technical capabilities future detectors should have to reliably observe specific signatures of processes occurring in gravitational-wave sources. Experience in gravitational wave lensing signatures will be an advantage.

We seek candidates holding the PhD degree in the field of physics or astronomy, or a related field.

The contract should start not later than 1 February 2026 (starting date is open for negotiation); the candidate should be in possession of the PhD degree at this time.

An employment contract is offered for 1.5 years (18 months).

The salary of the successful candidate will be competitive and comparable to that of Polish researchers in the same career stage, exceeding PLN 9400,00 gross per month, and a travel budget and computer equipment is available.

A post-doc position is a full-time position planned by the project manager for a person who has obtained a doctoral degree in the year of employment in the project or within 7 years prior to 1 January of the year of employment in the project15 . This period may be extended by the time spent on long-term (more than 90 days) documented sickness benefits or rehabilitation benefits due to incapacity for work during this period. In addition, this period may be extended by the number of months spent on leave related to the care and upbringing of children granted in accordance with the principles set out in the Labour Code and, in the case of women, by 18 months for each child born or adopted, if such a method of indicating breaks in scientific careers is more beneficial.

To apply for the position candidates should attach:

- a copy of the PhD diploma (or the supervisor's statement about the advancement of the PhD thesis);

- CV including a list of scientific publications;

- a short statement of research achievements and interests (maximum 3 pages);

- a scan of the signed NCN GDPR document available at:

https://www.camk.edu.pl/media/uploads_current/o_instytucie/rodo/rodo_deklaracja_ncn_ang.pdf

Additionally, applicants should arrange for two recommendation letters from independent researchers to be sent directly to the same e-mail address.

Documents should be submitted by 31 December 2025, by e-mail (in the pdf format), with a subject „Post-doc position in modelling astrophysical sources of gravitational waves” to recruitment@camk.edu.pl

The contest will be resolved before 15 January 2026.

The selection criteria include:

1. the candidate's research achievements including publications in prestigious academic press journals (50% of the final score);
2. research-related achievements, scholarships, awards and research experience gained in Poland or abroad, research workshops and training courses, participation in research projects (20% of the final score);

3. the candidate’s competence to carry out specific tasks in the research project (30% of the final score).

Additional information can be obtained by e-mail from Prof.  Michał Bejger
bejger@camk.edu.pl