



Center for Theoretical Physics
Polish Academy of Sciences
Aleja Lotników 32/46, 02-668 Warsaw
Tel.: +48 573 823 493
E-mail: cft@cft.edu.pl, NIP: 525-000-92-81, REGON: 000844815



FORM FOR EMPLOYERS

INSTITUTION Center for Theoretical Physics, Polish Academy of Sciences.....

CITY Warsaw.....

POSITION post-doc

DISCIPLINE physics.....

POSTED2024-12-11.....

EXPIRES ...2025-01-15.....

WEBSITE www.cft.edu.pl

KEY WORDS: black holes; neutron stars; hydrodynamics; high energy radiation

DESCRIPTION (field, expectations, comments):

The Director of the Center for Theoretical Physics PAS (CTP PAS) invites applications **for one postdoctoral fellowship** at the CTP PAS, financed from the project MAESTRO 15 "*Dynamics of processes around compact stars*", financed by the National Science Center (NCN), registration No. 2023/50/A/ST9/00527. PI of the project is Prof. dr hab. Agnieszka Janiuk.

We are looking for a candidate with a recognized **PhD degree (obtained not earlier than in December 2017)** and a **solid background in computational astrophysics, high energy phenomena, supercomputer simulations of magnetized plasmas in strong gravity regime. Basic knowledge of the theory of stellar evolution** will be an additional advantage. The project is carried on in a dynamic, mixed theoretical consortium, which, apart from CFT PAN, includes also collaborators from University of Łódź in Poland, as well as international collaborations with researchers from University Aveiro (Portugal) and University of Southampton (UK).

The project aims to advance the theoretical understanding of accretion flows around compact stars, such as black holes and neutron stars. These objects form after the collapse of a



Center for Theoretical Physics

Polish Academy of Sciences

Aleja Lotników 32/46, 02-668 Warsaw

Tel.: +48 573 823 493

E-mail: cft@cft.edu.pl, NIP: 525-000-92-81, REGON: 000844815



HR EXCELLENCE IN RESEARCH

massive star core, and are powering the central engine, in which a BH or NS accretes material from the rotating collapsar (MacFadyen & Woosley 1999). The properties of the electromagnetic emission and ejecta depend on the stellar structure. GR MHD simulations are used as a major tool for the study of many aspects of GRB phenomenology (Lazzati et al. 2015; Gottlieb et al. 2022). This project will focus on the innovative research that includes numerical modeling of the properties of the progenitor, the jet launching process, and the dynamics of jet propagation. From the computational point of view, the problem is very challenging, while it will provide a deeper theoretical foundation for assessing the capabilities of supercomputer simulations, using the most modern HPC systems in Poland and abroad.

Terms of employment: The position offered is for a period of one year with the possibility of extension, contingent upon excellence of research results and availability of funding. The competition will be concluded by the end of January 2025. The earliest date of starting work is beginning of February 2025.

Salary: PLN 9,772.10 gross per month (approx. PLN 7,550 net per month).

The application should include:

1. The scientific CV, including publication list, participation in research projects and conferences (with the clause “I consent to the processing of my personal data necessary for the recruitment process in accordance with the Regulation of the European Parliament and of the Council (EU) 2016/679 of April 27, 2016, on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (GDPR).”
2. Signed RODO clause.
3. Motivation letter, with a brief description of the Candidate’s scientific interests and future research plans.
4. A copy of the PhD diploma, or statement from the PhD Advisor on the planned date of defense (the PhD should be awarded before the post-doc contract starting date).
5. Applicants should also arrange to have two letters of reference separately sent to the email address given below.



Center for Theoretical Physics

Polish Academy of Sciences

Aleja Lotników 32/46, 02-668 Warsaw

Tel.: +48 573 823 493

E-mail: cft@cft.edu.pl, NIP: 525-000-92-81, REGON: 000844815



HR EXCELLENCE IN RESEARCH

The documents should be sent electronically until **2025-01-15** to rekrutacja@cft.edu.pl. In the title of the e-mails please add **the reference number: AJ/26/2025**.

Candidates will be evaluated based on the above documents. Selected candidates may be invited for an interview and the chosen candidates will be notified via email.

Center for Theoretical Physics PAS adheres to the Internal Reporting Regulations, which outline the procedure for reporting legal violations and subsequent actions. The full text of the regulations is available on the Institute's website.



Center for Theoretical Physics
Polish Academy of Sciences
Aleja Lotników 32/46, 02-668 Warsaw
Tel.: +48 573 823 493
E-mail: cft@cft.edu.pl, NIP: 525-000-92-81, REGON: 000844815



Information Clause – Job Recruitment

Information Obligation under the Article 13 of the RODO *:

1. Data Administrator

The administrator who is a deciding entity on how your personal data will be used is the Center for Theoretical Physics PAN represented by the Director with the seat in Warsaw Al. Lotników 32/46. You can contact the Administrator by using one of the contact forms available on the website: : <http://www.cft.edu.pl/>

2. Data Protection Inspector

The Director of the Center for Theoretical Physics of the Polish Academy of Sciences has appointed the Data Protection Inspector (Inspektor Ochrony Danych - IOD) with whom you can contact in all matters relating to your personal data. You can contact the Inspector by sending an email to: iod@cft.edu.pl

3. The Purposes of Processing and the Legal Basis for Processing

Your personal data will be processed for the purpose of running the current recruitment.
The basis for the processing of personal data are the provisions of the Labor Code Act of June 26, 1974 (uniform text: Dz. U. of 2018, item 917) and based on your consent for data processing.

4. The Period of Storage of Personal Data

Your personal data will be kept for the duration of the present recruitment.

5. Data Recipients**

The recipients of your personal data will be only entities authorized to obtain personal data on the basis of the law. Access to your data is provided only to employees authorized by the administrator and associates who must have access to the data to perform their duties.

6. Your Processing Rights

You have the right to access your data and the right to correct it or limit processing, as well as the right to appeal against the processing.

7. The Obligation to Provide Data and the Consequences of not Providing Data

Providing your personal data specified in the Labor Code is obligatory, and for the remaining extent voluntary.

8. The right to make a complaint to the President of the Office for the Protection of Personal Data

When you feel that the processing of personal data violates the provisions of the general regulation on the protection of personal data, you have the right to make a complaint to the President of the Office for the Protection of Personal Data.

Consent to Data Processing

I consent to the processing of my personal data by the Center for Theoretical Physics PAN for the needs of:

- Present recruitment.

I provide the data voluntarily and I declare that they are truthful. I got acquainted with the contents of the above information, including information about the purpose and methods of processing personal data and the right to access my data and the right to correct them.

.....
date, signature of the candidate

* Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46 / EC (general regulation on data protection)