Warsaw, July 31, 2024

Competition for One PhD Student Scholarship Position
at the Center for Theoretical Physics PAS (CTP PAS)

The Director of the Center for Theoretical Physics PAS announces a competition for one PhD student scholarship position in computational cosmology at the Center for Theoretical Physics PAS (CTP PAS) in Warsaw, Poland. The position is part of the research project *SONATA 19 PAIRS: Pairwise Velocities in the Context of the Cosmic Web,* funded by the National Science Center (project registration number: 2023/51/D/ST9/02919). The project is led by Dr. Mariana Jaber.

The recruitment includes admission to the GeoPlanet Doctoral School, affiliated with the Center for Theoretical Physics PAS.

This project aims to study the dynamics between pairs of galaxies using numerical simulations *(Jaber et al 2024, PRD)*, focusing on their placement in the cosmic web and merger histories. The cosmic web is the large-scale pattern of the matter distribution in the universe, shaped predominantly by the gravitational interactions of dark matter and baryonic matter *(Jaber et al 2024, MNRAS)*. It consists of dense regions known as nodes, long filamentary structures, flattened sheets, and vast low-density regions named voids. Quantifying how the environment affects the properties and dynamics of galaxies remains an open question. Furthermore, understanding galaxy merger rates (how frequently galaxies collide and merge over time) is crucial for comprehending the broader picture of galaxy formation and evolution, as well as the development of large-scale cosmic structures.

The successful applicant will become part of the research team **PAIRS**, focusing on the study of peculiar velocities and the cosmic web. The group puts special emphasis on the numerical and statistical analysis of cosmological simulations.

We are looking for a highly motivated student, interested in research in the field of cosmology. We expect the candidates to have:

- A strong background in theoretical physics and/or computational science
- A relevant Master's degree in physics, astronomy, or computational science **(*1)**,
- Interest in cosmology or astrophysics,
- Independence and creativity in solving problems.
- Familiarity working with cosmological simulations will be a plus.
- Having documented participation in previous research projects will be an added advantage.

Candidates are requested to submit the following documents by September 30, 2024, to the email address rekrutacja@cft.edu.pl**, indicating the reference number of the announcement MJ/16/2024:**

1. Scientific curriculum vitae taking into account the course of studies so far and possible scientific achievements (publications, participation in research projects, conference presentations), with the clause "*I agree to the processing of my personal data contained in the application documents for the purposes necessary for the implementation of the process recruitment by the doctoral school GeoPlanet*"
2. A cover letter (one page).
3. A copy of the master's degree diploma, or a statement from the Candidate's MSc Advisor about the planned date of obtaining the diploma.
4. Copies of documents confirming scientific or professional achievements.
5. Two letters of recommendation from a researcher with at least a PhD degree, concerning the candidate and their current scientific activity.
6. Application for admission to the Geoplanet doctoral school (Attachment No. 1).

Selected candidates will be invited to an **interview**, to be held in the week of **14-18th October**. Applicants will be informed of the results by email during the **4th week of October**. Candidates will be informed electronically of the results of the competition.

The winning candidate will be offered a scholarship from the project. The scholarship will be paid provided the student works on the project assigned by the PI of the research grant and it will be awarded in accordance with the applicable law in Poland and the regulations of the National Science Centre (NCN).

Admission to the GeoPlanet Doctoral School and the **beginning of the scholarship are scheduled for 2024-12-02.**

Link to information on the GeoPlanet Doctoral School**:** https://geoplanetschool.camk.edu.pl/doctoral–school/about–us/

*(1) The document awarding the degree of MSc is not required to participate in the competition, however, it must be obtained before starting the education in the Doctoral School.

For further information, please contact **Dr. Mariana Jaber (jaber@cft.edu.pl).**

APPLICATION FOR ENROLLMENT
in the GeoPlanet Doctoral School

1. Given name of the candidate:

2. Surname of the candidate:

3. Indicating the main research topic/theme and additional topics/themes - not more than 2 (if applicable):

4. E-mail address:

5. Correspondence address:

6. Subject of the Master's Thesis, the supervisor:

7. Level of English:

Hereby I move for my enrollment in the GeoPlanet Doctoral School in
………………………………………………………………………………......

I declare that I read the Regulations on the Recruitment to the GeoPlanet Doctoral School,

I agree to the processing of my personal data by …...............................
.... *(please provide the name of the Institute) for* realizing the recruitment process (pursuant with the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (Journal of Laws, EU.L as of 2016 No 119, page 1) – hereinafter: GDPR, and the domestic laws issued on its basis in the scope of personal data protection.

date: ....
                                                                    (signature)

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.

………………………….

signature of the candidate

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* 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)