



## FORM FOR EMPLOYERS

INSTITUTION	<b>UNIVERSITY OF WARSAW, FACULTY OF PHYSICS</b>
CITY	<b>WARSAW, POLAND</b>
POSITION	<b>POSTDOC</b>
DISCIPLINE	<b>PHYSICS</b>
NUMBER OF POSITIONS	<b>ONE</b>
POSTED	<b>24.09.2018</b>
EXPIRES	<b>15.10.2018 until 5 pm</b>
WEBSITE	<b><a href="https://www.fuw.edu.pl/">https://www.fuw.edu.pl/</a></b>
KEY WORDS	<b>NUMERICAL GENERAL RELATIVITY, EVOLUTIONARY SYSTEMS, CONSTRAINTS</b>

## DESCRIPTION (field, expectations, comments):

Work with the project NCN POLONEZ „Understanding The Role Of Space And Time In Canonical Gravity: Classical And Quantum Aspects”. The successful applicant will work on the numerical implementation of the recently introduced parabolic-hyperbolic form of constraints of general relativity. Specifically, she/he must develop an implicit numerical scheme for solving the constraints. Once a convergent and unconditionally stable numerical code has been finalised, the code will be used to construct initial data for distorted and binary black hole configurations. An additional task is to check if the constructed initial data is free of "junk radiation". The candidate should be able to develop a MOTS finder module of the final code. Finally, the produced initial data must be brought into a form that can be used by the existing time evolution codes

The candidates have to confirm to the conditions stated in art. 109 of Higher Education Law dated 27.07.2005. (uniform text: Journal of Laws of the Republic of Poland 2017, item 2183 with further amendments).

The requirements:

Highly experienced numerical relativist with extensive record in solving complex front-line problems in numerical mathematical relativity using state-of-the-art techniques. Extensive computational experience in a wide range of hyperbolic, elliptic, and parabolic partial differential equations. Ability to develop a wide range of problem-adapted numerical (finite difference, spectral, etc.) schemes and algorithms from scratch. Knowledge and previous experience in at least one of the main programming languages (Python, C++, etc.) is absolutely essential. The candidates must have PhD degree. Applicants having experience in developing and using implicit numerical schemes for non-linear systems will be preferred.

The candidate should provide the following documents:

1. Application for the position. *In case of submitting the application by e-mail, please use the pdf-format and the file should contain a scanned signature.*
2. Information on the processing of personal data - information clause and consent clause - attachment to the announcement (available on the website <http://bsp.adm.uw.edu.pl/bsp/druki-i-formularze/>). *In case of submitting the application by e-mail, please use the pdf-format and the file should contain a scanned signature.*
3. cv
4. list of publications
5. copy of PhD diploma

*In order to start the employment process, a succesful candidate will have to submit original signed documents.*

The candidate should provide all documents by email to: [istvan.racz@fuw.edu.pl](mailto:istvan.racz@fuw.edu.pl).

The entire procedure will be concluded before 03.11.2018 The candidate might be asked for an interview with the commission appointed by the Dean of the Faculty.

*All candidates will be informed about the resultsof the application process by email.*

This announcement is the first step in the procedure of employing an academic teacher and its positive result will be a base for consecutive steps.

## INFORMATION CLAUSE

Pursuant to Article 13 of 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), University of Warsaw hereby informs:

1. The Controller of your personal data is the University of Warsaw with its registered office at Krakowskie Przedmieście 26/28, 00-927 Warszawa;
2. The Controller has designated the Data Protection Officer who supervises the processing of personal data, and who can be contacted via the following e-mail address: [iod@adm.uw.edu.pl](mailto:iod@adm.uw.edu.pl);
3. Your personal data will be processed for the purpose of carrying out a recruitment process and selecting an employee and concluding a contract for employment at the University of Warsaw;
4. The provided data will be processed pursuant to Article 22<sup>1</sup> § 1 of the Act of 26 June 1974 Labor Code (uniformed text: Dz.U. of 2018, item 917) and your consent for processing of personal data;
5. Provision of data in the scope stipulated in the Labor Code is mandatory, and the remaining data are processed according to your consent for processing of personal data;
6. The data will not be shared with any external entities;
7. The data will be stored until you withdraw your consent for processing of personal data;
8. You have the right to access your personal data, to rectify, erase them, restrict their processing, object to processing, and to withdraw the consent at any time;
9. You have the right to lodge a complaint to the President of the Office for the Protection of Personal Data.

## CONSENT CLAUSE

I hereby consent to have my personal data processed by the University of Warsaw with its registered office at ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa for the purpose of carrying out a recruitment process and selecting an employee and concluding a contract for employment at the University of Warsaw.

I have been informed of my rights and duties. I understand that provision of my personal data is voluntary.

.....  
(place and date)

.....  
(signature of the person applying for employment)