ΑΝΑΡΤΗΤΕΑ ΣΤΟ ΔΙΑΔΙΚΤΥΟ

ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΥΠΟΥΡΓΕΙΟ ΑΝΑΠΤΥΞΗΣ
ΓΕΝΙΚΗ ΓΡΑΜΜΑΤΕΙΑ ΕΡΕΥΝΑΣ ΚΑΙ ΚΑΙΝΟΤΟΜΙΑΣ
ΙΔΡΥΜΑ ΤΕΧΝΟΛΟΓΙΑΣ ΚΑΙ ΕΡΕΥΝΑΣ, ΙΝΣΤΙΤΟΥΤΟ ΑΣΤΡΟΦΥΣΙΚΗΣ
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Α.Π. 125314
Ηράκλειο, 15.11.2023

Call for expression of interest for one (1) PhD student position, at the Institute of Astrophysics (IA) Foundation for Research and Technology – Hellas (FORTH)

Position(s): One (1) PhD student position for the HORIZON project ARGOS-CDS
Project: "ARGOS Conceptual Design Study: Designing a Next-Generation Radio Facility For Multi-Messenger Astronomy" (Grant Agreement number: 101094354) funded under HORIZON-INFRA-2022-DEV-01
Desired starting date: January 1st, 2024
Duration: 12 months
Location: Heraklion, Crete, Greece
Opening date: 15.11.2023
Closing date: 01.12.2023

Description

"Radio Astronomy Observations".

ARGOS
Astronomy is being transformed by surveys performed with instruments capable of searching the sky for multi-messenger signals with high speed and sensitivity, while delivering science-read datasets to the community. While radio astronomy is not yet fully participating in this revolution, an instrument following the same philosophy that would finally open the dynamic radio sky for exploration is not only urgent but inevitable. ARGOS is a concept (TRL2) for a leading-edge, low-cost, sustainable "small-D, big-N" radio interferometer that will realize this ambition, directly addressing multiple fundamental scientific questions, from the nature of dark matter and dark energy to the origin of fast radio bursts and the properties of extreme gravity. ARGOS will enable continuous wide-field monitoring of the sky at centimeter wavelengths while publicly distributing science-ready data and alerts in real time.

The HORIZON project "**ARGOS Conceptual Design Study: Designing a Next-Generation Radio Facility For Multi-Messenger Astronomy (ARGOS-CDS)**", funded under the **HORIZON-INFRA-2022-DEV-01** call, aims to conduct a comprehensive design study to
a) address all technological and scientific challenges related to the development of such an instrument
b) prepare for its subsequent rapid implementation on European Grounds and
c) ensure its optimal integration into the network of existing and future international astronomical infrastructures

Within this project, we seek **one (1) PhD student** to lead the development of the ARGOS pulsar processing pipeline for the production science-ready pulse time-of-arrival datasets. The successful candidate will also be expected to participate and lead European Pulsar Timing Array projects.

Environment

The successful candidate will be working in the international and multidisciplinary environment of FORTH, in Heraklion, Crete, Greece. The post-doctoral researcher will closely collaborate with members of the FORTH Institute of Astrophysics (IA-FORTH) as well as with members of the Institute of Computer Science (ICS-FORTH) for software optimization tasks. The post-doctoral researcher will also have the opportunity to:

- collaborate closely with the other ARGOS-CDS nodes in France (CEA-Saclay), Germany (Max-Planck-Institute for Radio Astronomy) and Piraeus (University of Piraeus).
- Become members and collaborate with the European Pulsar Timing Array Consortium
- Participate in international training schools and present their work in international conferences.

IA-FORTH and ICS-FORTH: The **Foundation for Research and Technology – Hellas (FORTH)** is the largest and most prestigious research center in Greece with modern facilities and highly qualified personnel. It comprises ten research institutes located throughout Greece. The Institute of Computer Science (ICS-FORTH) and the Institute of Astrophysics (IA-FORTH) are located in the main campus, around 5km south of Heraklion on the island of Crete, Greece. Members from both ICS-FORTH and IA-FORTH are involved in the ARGOS-CDS project. The group is committed to diversity and equality, encourages applications from women and underrepresented minorities, and supports a flexible and family-friendly work environment. Benefits for this position include retirement, health care, and parental leave.

Requirements and desired qualifications

Required qualifications:
The candidate has to be already enrolled in a PhD program. For enrolment in the University of Crete, the eligibility of the candidates will be assessed by an independent faculty committee.

- Bachelor's degree and Master Degree in Physics
- Good programming skills
- Past research experience in radio astronomy and familiarity with pulsar timing observations

The aforementioned required qualifications will be judged as follows:

- Degree titles (50**%)**
- Programming experience (25%)
- Past research experience (25%)

Application Submission
Interested candidates who meet the aforementioned requirements are kindly asked to submit their applications, no later than **Friday December 1st 2023, 23:59** local Greece time to the address (info@ia.forth.gr), with cc to Dr. John Antoniadis (john@ia.forth.gr).
"Apply for the position" under the announcement.

Applications must include:

- Application form (please download the file from the job announcement webpage
- Detailed CV, including qualifications and interests in the above areas and proof thereof
- Scanned copies of academic titles; academic transcripts for undergraduate and postgraduate degrees
- Two (2) letters of recommendation (to be sent via e-mail to john@ia.forth.gr), detailed presentation of prior work, studies and/or publications, demonstrating knowledge of desired skills

To be accepted for the position the candidates will also have to provide proof of acceptance in a PhD program

Contact Information:
For information and questions about the advertised position, the activity of the group or the Institute, please contact Dr. John Antoniadis (john@ia.forth.gr)

Selection Announcement
The result of the selection will be announced on the website of IA - FORTH.
Candidates have the right to appeal the selection decision, by addressing their written objection to the IA secretariat within five (5) days since the results announcement on the web. They also have the right to access (a) the files of the candidates as well as (b) the table of candidates' scores (ranking of candidates results). All the above information related to the selection procedure will be available at the secretariat of IA - FORTH in line with the Hellenic Data Protection Authority.

GDPR

FORTH is compliant with all legal procedures for the processing of personal data as defined by the Regulation EU/2016/679 on the protection of natural persons with regard to the processing of personal data.

FORTH processes the personal data and relevant supporting documents that you have submitted to us. Processing of that data is carried out exclusively for the needs and purposes of this specific call. Such data shall not be transmitted to or communicated to any third party unless required by law.

FORTH retains the above data up to the announcement of the final results of the call, unless further process and reservation is required by law or for purposes of exercise, enforcement, prosecution of certain one's legitimate legal rights' as defined in the Regulation EU/2016/679 and/or in national law.

We inform you that under the Regulation EU/2016/679 you have the rights to be informed about your personal data, access to, rectification and erasure, restrictions of process and objection to as provided by applicable regulation and national laws.

We acknowledge also to you, that you have the right to file a complaint to the national Data Protection Authority. For any further information regarding exercise of your personal data protection rights, you may contact the Data Protection Officer at FORTH at dpo@admin.forth.gr.

You have the right to withdraw your application and consent for the processing of your personal data at any time. We inform you that, in this case, FORTH shall destroy such documents and/or supporting documents submitted and shall delete the related personal data.