

JOB OFFER

| | |
|--|--|
| Position in the project: | Postdoc in International Research Agenda AstroCeNT: Particle Astrophysics Science and Technology Centre |
| Scientific discipline: | Computer Science: quantum machine learning, Bayesian methods in science |
| Job type (employment contract/stipend): | Employment contract (part-time employment possible) |
| Number of job offers: | 1 |
| Remuneration/stipend amount/month ("X0 000 PLN of full remuneration cost, i.e. expected net salary at X 000 PLN"): | monthly gross salary before taxes up to 18,000.00 PLN (expected net salary: about 11,100.00 PLN) |
| Position starts on: | 1 October 2023 |
| Maximum period of contract/stipend agreement: | Until 31 December .2023 |
| Institution: | AstroCeNT Department of the Nicolaus Copernicus Astronomical Centre of the Polish Academy of Sciences |
| Project leader: | Leszek Roszkowski (leader) |
| Project title: | <p>AstroCeNT: Particle Astrophysics Science and Technology Centre</p> <p><i>(The project is carried out within the International Research Agendas Programme of the Foundation for Polish Science)</i></p> |
| Project description: | <p>Applications are invited for one postdoctoral position in the field of quantum machine learning i Bayesian methods in science at AstroCeNT, an international Centre of Excellence in Particle Astrophysics in Warsaw, Poland (see below for more information).</p> <p>Successful applicants will be expected to join the "Scientific Computing & Information Technology Group" led by Prof. Piotr Gawron, and to engage in research on (depending on the candidate skills):</p> <ul style="list-style-type: none"> - Applying Bayesian methods to data analysis in particle detectors. - Processing and analyzing multidimensional time series data from sensor arrays. - Developing models for quantum machine learning. <p>The primary responsibility of the person employed in this position is to conduct theoretical research and develop software for data processing based on mathematical models.</p> <p>The workplace is located at AstroCeNT in Warsaw. Various forms of remote work are allowed.</p> <p>We are seeking candidates who have obtained or will obtain a doctoral degree in computer science or related fields within the last 5 years. In particular, we are looking for candidates with excellent mathematical preparation, software development skills, and experience in quantum computations.</p> <p>Astrocent (https://astrocent.camk.edu.pl) — Particle Astrophysics Science and Technology Centre was established on 1 July 2018 following an award of nearly 38 million PLN (nearly 9M Euro, over 10M USD) within the framework of the International Research Agendas Programme of the Foundation for Polish Science, see:</p> |

<https://www.fnp.org.pl/en/projekt-astrocent-zdobył-finansowanie-w-programie-mab>.

At AstroCeNT, research is focused primarily on the areas of the detection of gravitational waves and dark matter using advanced technological instruments, whose development has been among the prime areas of activity of the Centre. However, it is planned to engage in other areas of theoretical and experimental research in particle astrophysics, beyond gravitational waves and dark matter.

AstroCeNT has developed close collaborative links with several institutions in Europe and outside, in particular with our strategic partners APC (Astroparticle and Cosmology Laboratory) in Paris and the McDonald Institute in Canada. More collaborations are being established.

Currently AstroCeNT comprises six international research groups of physicists and engineers:

1. SiPM Systems for Astroparticle Physics and Medical Physics (leader: Prof. Marcin Kuźniak);
2. Seismic Sensors (leader: Prof. Tomasz Bulik);
3. Electronics and Data Acquisition and Processing (leader: Dr Mariusz Suchenek);
4. Ultrapure SiPMs and Associated Readout Electronics (leader: Dr Masayuki Wada);
5. Scientific Computing & Information Technology (leader: Professor Piotr Gawron);
6. Particle Astrophysics (leader: Prof. Leszek Roszkowski).

Expansion to other activities in the field will be considered in the future.

AstroCeNT is formally a new administrative division of Nicolaus Copernicus Astronomical Center of the Polish Academy of Sciences (<http://www.camk.edu.pl>) – an internationally leading institute in astronomy and astrophysics. The Centre is led by Professor Leszek Roszkowski.

AstroCeNT is conveniently located in the city centre, with easy access from rail stations and airports. The center occupies a suite of spacious and modern labs and offices on the top floor of a modern building (<https://www.cziitt.pw.edu.pl/?lang=en>) of Warsaw University of Technology (<https://www.pw.edu.pl/engpw>) in order to foster communication and cooperation with local engineers and physicists, and to enhance scientific and academic environment. The site is also well connected with Physics Department of the University of Warsaw and the main site of the Nicolaus Copernicus Astronomical Centre of the Polish Academy of Sciences and other research institutes in Warsaw.

AstroCeNT strongly values the diversity of candidates and is very committed to the equality of opportunity.

Key responsibilities include:

1. Active participation in AstroCeNT's research program.
2. Active collaboration with other research teams at AstroCeNT.
3. Preparation for applying for grants.

Profile of candidates/requirements:

1. Ability to work and collaborate in research teams within a competitive environment.

| | |
|--|--|
| | <ol style="list-style-type: none"> 2. Strong achievements in previous research. 3. Experience in preparing grant proposals and applications for funding. |
| Required documents: | <ol style="list-style-type: none"> 1. curriculum vitae, 2. statement of research interests, 3. list of publications, 4. photocopy of PhD diploma (if already issued), 5. copy of PhD thesis (if not confidential), 6. at least two, preferably three, letters of reference, 7. scanned signed GDPR form (available from https://www.camk.edu.pl/en/about/ochrona-danych-osobowych/#rodocent). |
| We offer: | <ol style="list-style-type: none"> 1. Stimulating, international, English speaking research environment. 2. Possibility to develop frontline research in gravitational wave research, in collaboration with the other teams of AstroCeNT and with our strategic partner APC. 3. Funding for research, travel and basic equipment. 4. Scientific, organizational and technical support, including standard research facilities. |
| Please submit the following documents to: | recruitment at astrocent.pl |
| Application deadline: | 28 August 2023 |
| For more details about the position please visit (website/webpage address): | More information can be obtained from Prof. Piotr Gawron (gawron at camk.edu.pl) |
| Euraxess job/stipend offer (in case of PhD, postdoc, leader and young leader positions): | https://euraxess.ec.europa.eu/jobs/131989 |