

JOB OFFER

Position in the project:	Postdoc in particle astrophysics in International Research Agenda AstroCeNT: Particle Astrophysics Science and Technology Centre
Scientific discipline:	Computer Science: machine learning, deep learning, signal processing, distributed computing
Job type (employment contract/stipend):	Employment contract
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 of 14,000.00 PLN (expected net salary: about 9,400.00 PLN)
Position starts on:	1 July 2022
Maximum period of contract/stipend agreement:	Until 30.06.2023 (with possible extension)
Institution:	AstroCeNT Department of the Nicolaus Copernicus Astronomical Centre of the Polish Academy of Sciences
Project leader:	Leszek Roszkowski (leader)
Project title:	AstroCeNT: Particle Astrophysics Science and Technology Centre <i>(The project is carried out within the International Research Agendas Programme of the Foundation for Polish Science)</i>
Project description:	<p>Applications are invited for one postdoctoral position in the field of machine learning and signal processing at AstroCeNT, a new 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"> - the multivariate time series processing and analysis for data originating from sensor arrays; - the image reconstruction in Time-of-Flight Positron Emission Tomography; - the position reconstruction of events in a argon dark matter detector; - the development of the quantum machine learning models. <p>The primary responsibility of persons employed at this position is to conduct theoretical research and to develop the signal processing software based either on traditional signal processing techniques or on the machine learning models.</p> <p>The positions will be based at AstroCeNT in Warsaw, Poland.</p> <p>We are seeking applicants that received their PhD in computer science, physics or mathematics or related fields within the past 5 years. In particular, we are looking for applicants with experience in machine learning, data analysis, signal processing and quantum computing. We require that candidates have significant experience in software development.</p> <p>The position is available immediately.</p> <p>Astrocent (https://astrocent.camk.edu.pl) — Particle Astrophysics</p>

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:

<https://www.fnp.org.pl/en/projekt-astrocent-zdobyty-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 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. Actively participating in the research programme at

	<p>AstroCeNT.</p> <ol style="list-style-type: none"> Active cooperation with other research teams at AstroCeNT. Being prepared to apply for grants.
Profile of candidates/requirements:	<ol style="list-style-type: none"> Ability to work and collaborate in research teams in a competitive environment. Strong track record of past research. A potential to attract grant funding.
Required documents:	<ol style="list-style-type: none"> curriculum vitae, statement of research interests, publication list, photocopy of PhD diploma, copy of PhD thesis (if not confidential), at least two, preferably three, letters of reference, scan of signed GDPR form (available from https://www.camk.edu.pl/en/about/ochrona-danych-osobowych/#rodcent).
We offer:	<ol style="list-style-type: none"> Stimulating, international, English speaking research environment in a new centre of excellence. Possibility to develop frontline research in gravitational wave research, in collaboration with the other teams of AstroCeNT and with our strategic partner APC. Funding for research, travel and basic equipment. Scientific, organizational and technical support, including standard research facilities.
Please submit the following documents to:	All the material should be sent by email to: recruitment@astrocent.pl
Application deadline:	5 June 2022
For more details about the position please visit (website/webpage address):	More information can be obtained from Prof. Piotr Gawron (gawron@camk.edu.pl)
Euraxess job/stipend offer (in case of PhD, postdoc, leader and young leader positions):	https://euraxess.ec.europa.eu/jobs/780760