



Position in medical imaging

We are looking for candidates ready for new challenges in the domain of medical imaging. The selected applicant will work on the development of **medical imaging algorithms** and **Monte Carlo modeling** for the novel **total-body** PET scanner within the Jagiellonian PET project. The aim of the J-PET project (<http://koza.if.uj.edu.pl/pet/>) is to develop a cost-effective **Positron Emission Tomography** scanner build from plastic scintillators. The group explores new possibilities opened by the J-PET tomograph enabling methods of **positronium** and **quantum entanglement imaging**.

The project is carried out by an interdisciplinary and international group from the Jagiellonian University, National Centre for Nuclear Research, Maria Curie-Skłodowska University, University of Vienna, National Laboratory in Frascati. It interfaces technologies from a variety of disciplines including biology, biophysics, computer science, electronics, engineering, physics, and medicine. The applicant will be employed by the Jagiellonian University in Cracow, Poland.

The candidate is expected to have a strong background in MC modeling and high programming skills. The advanced level of C++ or Python is required, with at least a basic level of the other one. Expertise in medical imaging is not strictly required, however, the applicants should have a strong motivation to acquire the necessary knowledge.

The salary will be negotiated and depends on the experiences and skills of the candidate. The position does not involve mandatory teaching. The appointments are initially for one year. The overall position is for **3 years**.

Requirements:

- Ph.D. degree in Computer Science, Physics, Medical Physics or similar (for exceptional candidatures Msc degree is enough),
- high level of programming skills in C++ or Python, and at least basic knowledge of the other one,
- expertise in Monte Carlo simulations modeling (e.g. Geant, GATE, or similar packages),
- communicative English.

Preferences:

- knowledge of medical imaging algorithms or procedures in PET/CT tomography,

We offer:

- participation in a challenging project with the direct application to **medicine**,
- possibility to learn in practice: medical imaging algorithms, good coding practices (unit testing, continuous integration), machine learning methods,

Applicants should send their **CV** and one recommendation letter to Wojciech Krzemień,
The complete applications will be considered immediately.

If you have any informal questions, please do not hesitate to contact:
wojciech.krzemien@ncbj.gov.pl