

Ph.D. and graduate student positions with scholarships

in the NCN project – Sonata Bis 7 2018/26/E/ST2/00618:

On-line monitoring of deposited dose distribution in proton therapy using heavy scintillation fibres

The aim of the project is development of method for on-line monitoring of deposited dose distribution in proton therapy. For this purpose an apparatus will be built, which utilizes prompt gamma rays emitted from patient during irradiation. In the design the latest developments in scintillation detectors will be exploited – fibres made from modern, heavy scintillators. The project is located where medical physics meets nuclear physics and comprises diversity of tasks, from tests of detector components, through building of a modern data acquisition system, to creation of fast algorithms for image reconstruction. The project is realized in the Faculty of Physics, Astronomy and Applied Computer Science of the Jagiellonian University in Kraków, Poland in collaboration with the RWTH University in Aachen, Germany. Project leader is Aleksandra Wrońska, PhD.



2 positions for graduate students

2 positions for Ph.D. students

Skills and experience:

- status of graduate student in physics, computer science, electronics or similar (or a prospect to become such a student before October 2020),
- M.Sc. in physics, computer science, electronics or similar,
- status of Ph.D. student in a Polish institution (or a prospect of graduation before October 2020),
- passion for experimental work,
- knowledge of at least one programming language,
- ability to work in a group,
- good knowledge of English.

Examples of tasks:

- tests and optimization of measurement system components,
- Monte-Carlo simulations using Geant4,
- measurements with phantoms in a proton-therapy center,
- analysis and interpretation of experimental data,
- presentation of results on the group forum and at conferences.

Scholarship:

For the time of work in the project
1 000 PLN per month.

For the time of work in the project
3 000 PLN per month.

Documents:

cover letter, cv, transcript of records, description of previous scientific work and other experiences / achievements (optional)

Deadline and form of application:

30 May 2020, documents merged into a single pdf file should be sent to aleksandra.wronska@uj.edu.pl. Please include the consent for the processing of personal data according to the template from http://bragg.if.uj.edu.pl/RODO_Stypendium.docx.

Additional information:

Interested candidates are invited to contact us directly to get more details about the project. Scholarship holders will be selected by a committee chaired by the project leader. Selected candidates will be invited for an interview.