



## PhD in High-Energy Astrophysics

The Henryk Niewodniczański Institute of Nuclear Physics Polish Academy of Sciences in Kraków, Poland, invites applications for a PhD student position in the field of high-energy astrophysics. The successful applicant will work under a supervision of Dr. Hab. Sabrina Casanova on the project “Nonthermal emission from the Galactic Disk: a probe to study cosmic-ray origin and propagation” funded by the Polish National Science Centre within the OPUS 7 program. The project aims to investigate cosmic-ray origin and propagation within a phenomenological approach, by comparing model predictions with gamma-ray maps and spectra obtained from GeV to TeV energies with the current and future instruments of gamma-ray astronomy: Fermi, the High Energy Stereoscopic System (H.E.S.S.), the High Altitude Water Cherenkov (HAWC), and the upcoming Cherenkov Telescope Array (CTA).

Dr. Sabrina Casanova’s primary research area is in Galactic gamma-ray astrophysics. In particular, Dr. Casanova is strongly involved in the observational gamma-ray astronomy through the membership in the HAWC and H.E.S.S. collaborations and in the CTA Consortium.

The candidate after passing a qualifying exam (September 27-29, 2016) will be enrolled in the PhD program at the International PhD Studies in INP PAS (for a detailed information on the recruitment process see: <http://www.ifj.edu.pl/msd/en/>), during which he/she will receive a scholarship and an *additional* scholarship funded from the NSC project for period of at least 24 months. Funding for travel and access to computational equipment will also be provided. The starting date is October 1, 2016. Candidates are required to have completed their MSc degree in astronomy, physics, or related field before the starting date.

Expected qualifications include first of all a good knowledge of basic physics and a basic knowledge in the field of astrophysics. Due to the applied research methods the ability to work with a Linux operating system and a good knowledge of C++ or python programming language is required. A good command of English is essential.

The applicants should provide a CV, a copy of the MSc diploma, a transcript of grades for courses taken during the MSc studies, a statement of motivation, research interests, and experience (max. 2 pages) and arrange for one letter of recommendation. The interviews will be arranged with selected candidates. The final deadline for applications is September 9, 2016. Applications (in pdf format) and further questions should be sent to: [sabrinacasanova@gmail.com](mailto:sabrinacasanova@gmail.com) and [Jacek.Niemiec@ifj.edu.pl](mailto:Jacek.Niemiec@ifj.edu.pl).

Contact: Dr. Hab. Sabrina Casanova  
Department of Gamma-Ray Astrophysics  
The H. Niewodniczański Institute of Nuclear Physics  
Polish Academy of Sciences  
Radzikowskiego 152  
31-342 Kraków, Poland  
tel.: +48 12 662 8274  
e-mail: [Sabrina.Casanova@ifj.edu.pl](mailto:Sabrina.Casanova@ifj.edu.pl), [sabrinacasanova@gmail.com](mailto:sabrinacasanova@gmail.com)