



University of Nova Gorica announces an open position

POSTDOCTORAL RESEARCHER IN THE FIELD OF ASTROPARTICLE PHYSICS (m/f)

Candidates are expected to:

- have a PhD degree in the relevant field of Physics or Astrophysics,
- have research experience in numerical modeling and data analysis,
- be independent, have team spirit for international collaborative work,
- have a good command of the English language.

Applicants familiar with numerical and analytical studies of non-thermal processes in astroparticle physics are in particular encouraged to apply. Good knowledge of cosmic ray propagation study tools such as CPRropa or SimProp would be a welcome asset.

The successful candidate will be directly involved in the research activities of the [Center for Astrophysics and Cosmology](#) of the University of Nova Gorica, and will work on the research project N1-0111 “Identification of cosmic ray sources amongst jetted active galaxies”, which is jointly funded by Slovenian Research Agency (ARRS) and FWF Der Wissenschaftsfonds, Austria.

The purpose of the research project is to determine to which extent ultra-high energy (UHE, ≥ 10 EeV) cosmic rays (CRs) originate from jetted active galactic nuclei using the Pierre Auger Observatory data. Slovenian part of the project task includes simulations of the propagation and interactions of UHECRs, as well as estimation of accompanying secondary photon emission. Characteristic UHECR features stemming from jets of active galaxies, and verifiable by the near-future Cherenkov Telescope Array (CTA), will be also predicted.

The main duties of the candidate will be:

- analysis of the properties of the ultra-high energy cosmic ray events using the Pierre Auger Observatory data,
- simulations of the propagation and interactions of ultra-high energy cosmic rays using CRPropa tool,
- optimization of the CTA observation strategies for the UHECR science case.

The position will be available as soon as the selection is completed with the appointment for three years.

Please submit:

- Curriculum vitae,
- A cover letter describing your research experience and interests,
- List of publications,
- Names and contact data of two experts that can referee for the candidate.

Evaluations of applications will start on **31 May 2019**. Applications received after this date will be taken into account until the position has been filled.

Applications should be sent by e-mail **as a single file in pdf format** to the University of Nova Gorica personnel office, address tea.stibilj.nemec@ung.si

Applications and administrative information:

Mrs. Stibilj Nemec, phone +386 (0)5 620 85 22, E-mail tea.stibilj.nemec@ung.si

For further questions please contact: doc. dr. Serguei Vorobiov, E-mail: sergey.vorobyev@ung.si