

1 PhD Position and 1 Postdoctoral Position – High-Energy Multi-Messenger Astrophysics

Deadline on Sep 15, 2021

Job description:

The astroparticle group of Prof. Buson based at the University of Wuerzburg (DE), hosted at the Chair for Astronomy, invites applications for

- **1 PhD student position (all genders welcome) (E13 TV-G-U, 66%)**
- **1 Postdoctoral position (all genders welcome) (E13 TV-G-U, 100%)**

at the interface of high-energy astrophysics, time-domain and multi-messenger astronomy, with a starting date as early as Fall 2021. The positions are available in the framework of the project "Mapping Highly Energetic Messengers Throughout the Universe - MessMapp" funded under H2020-EU.1.1. - Excellent Science - European Research Council (ERC; Call: ERC-2020-STG, Proposal number: 949555).

Job description: The successful candidates will work with Prof. Sara Buson and pursue cutting-edge research in the multi-messenger astrophysics field. They will conduct primarily research on radio-loud active galactic nuclei, to explore the potential interplay between high-energy transient and variable sources and the origin of astrophysical neutrinos.

The prospective candidates will have the opportunity to join international research collaborations, working with data from state-of-the-art gamma-ray observatories such as the Fermi Large Area Telescope and Imaging Atmospheric Cherenkov Telescopes.

Qualification requirements: The ideal candidates have a Master's/PhD degree in physics or astrophysics for the PhD/postdoc position, respectively, a strong background in active galactic nuclei physics, high-energy astrophysics and/or neutrino astronomy, and solid knowledge of at least one programming language (Python, C++). Experience with optical and/or X-ray observatories and/or database handling (e.g. MySQL or similar) is of advantage but not a prerequisite for the postdoc position. The required knowledge of the English language is level B1 of CEFR or above.

Application material and deadline: Applications, including a cover letter, curriculum vitae with publication list, a brief research summary and outlook, and a copy of the Master's/PhD certificate (or alternatively a statement from the supervisor stating the expected completion date of the Master's/PhD thesis), should be sent electronically preferably as a single PDF document to: buson@astro.uni-wuerzburg.de

Applicants should also arrange for two letters of recommendation to be sent separately to the e-mail address above.

Applications received by September 15, 2021 will be given full consideration. The positions will remain open after this first deadline until suitable candidates are found.

Working environment: Computing resources and support for travelling are excellent. Group members have the opportunity to attend international conferences and schools, and benefit from other educational and supporting measures. The group working environment will be stimulating and allow for personal growth.

Addition information: The appointment is for three years for the PhD position and two years for the postdoc position. The contracts are fixed-term positions. A possible extension depends on the availability of further funds and mutual satisfaction. The salary will be based on the German federal public service salary scale (E13 TV-L; 66% for PhD positions, 100% for postdoc positions), amounting to a gross salary of approximately 2900-3050 EUR per month for the PhD position (4400-4600 EUR per month for the postdoc position). Successful candidates will receive standard unemployment, health, and retirement benefits according to the German law.

Contact: Sara Buson (buson@astro.uni-wuerzburg.de)

Letters of Reference should be sent to: buson@astro.uni-wuerzburg.de