

PhD position in computational astrophysics

I. Physical Institute

Foto: Thomas Josek

With approximately 49,000 students, the University of Cologne is one of the largest universities in Germany and ranks among the Excellence Universities. It employs over 600 professors and 7,000 academic and non-academic staff.

The Theoretical Astrophysics group works on numerical simulations of star formation from sub-pc to kpc scales including state-of-the-art stellar feedback models and astrochemical networks. The position will be offered in the Collaborative Research Centre 956 „Conditions and impact of Star formation“ (<https://www.sfb956.de/>).

YOUR TASKS

- » implementing and benchmarking astrochemical networks in an astrochemistry code
- » running, post-processing and analysing 3D, magneto-hydrodynamical simulations of molecular clouds
- » determining the accuracy of observational methods to determine the age and chemical composition of astrophysical objects by means of realistic 3D simulations
- » collaborate with colleagues and contribute to the academic environment at the institute

YOUR PROFILE

- » University diploma or MSc. degree in physics, astrophysics, or a related field
- » Experience with 3D, (magneto-hydrodynamical) simulations or astrochemistry or radiative transfer
- » Knowledge and first experience with programming in Fortran90 / C++
- » Knowledge of python or other plotting tools
- » Experience in high-performance computing is welcome

WE OFFER YOU

- » to carry out a PhD on a hot topic in an international environment
- » a diverse and fair working environment
- » support in reconciling work and family life
- » flexible working time models
- » extensive advanced training opportunities
- » occupational health management offers
- » local transport ticket at a discount for UoC employees

The position is available from 01.03.2019 on a part-time (50%) basis. It is initially limited to 31.12.2022. If the applicant meets the relevant wage requirements and personal qualifications, the salary is based on remuneration group 13 TV-L of the pay scale for the German public sector.

The University of Cologne promotes equal opportunities and diversity in its employment relations. Women are expressly encouraged to apply and given priority in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We expressly welcome applications from individuals with severe disabilities or people of equivalent status. Severely disabled applicants of equal merit and qualifications will be given priority.

Please send your convincing application with proof of the sought qualifications by email (in one pdf-file) with the reference number wiss1901-13 to seifried@ph1.uni-koeln.de.

The application deadline is 28.02.2019.