

Postdoctoral position in Computational Astrophysics

I. Physics Institut

With approximately 50,000 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 aims at bridging the gap between local studies of star formation and feedback and the galaxy-scale evolution of the interstellar medium (ISM). This is done utilizing 3D high-resolution simulations, which require high-performance computing. The position is offered within the ERC-St.G Project RADFEEDBACK of Prof. Walch.

YOUR TASKS

- » Develop new numerical techniques and improve existing ones, in particular improve our radiative transfer scheme and implementing multiple energy bands
- » Carry out radiation-magnetohydrodynamics simulations, analyze and publish the results
- » The aim of the project is the simulation of the impact of UV and X-ray emission from shocks, supernova remnants, and stellar sources on gas dynamics and chemistry in 3D MHD simulations

YOUR PROFILE

- » In-depth experience in high-performance computing and astrophysical fluid dynamics
- » Very good knowledge and experience with programming in Fortran90 / C++ and possibly MPI
- » University diploma or MSc. degree and a PhD in physics, astrophysics, or a related field

WE OFFER YOU

- » to work on a hot topic in a highly international team
- » a diverse and fair working environment
- » Support in reconciling work and family life
- » Flexible working time models, full-time positions suitable for job sharing
- » Extensive advanced training opportunities
- » Occupational health management offers
- » Local transport ticket at a discount for UoC employees

The position is available from 01.04.2019 on a full-time basis. It is limited to 2 years. 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 1812-06 to walch@ph1.uni-koeln.de. The application deadline is January 30, 2019.