

The Faculty of Physics, Cosmology and Astrophysics group has the following job opening:

## Research Position (PhD student) (m/f/d)



ID: **Wiss25547**

- Start: 01.03.2026 or as soon as possible
- part-time 65 %
- salary according to Remuneration level 13 TV-L
- fixed-term

The ErUM-IFT-2 project "Information Field Theory for Experiments at Large Research Facilities" has a PhD opening in the field of data-intensive radio astronomy. Methods of information field theory will be used to characterise the properties of radio antennas as used in modern radio interferometers (e. g., MeerKAT, LOFAR, SKA). The goal is to establish accurate models for antenna responses and describe their uncertainties in order to improve imaging techniques at large radio astronomy facilities. The project will be carried out in the Cosmology and Astroparticle Physics working group (Prof. Schwarz) at the Faculty of Physics. This will be done in close cooperation with working groups at the Max Planck Institute for Astrophysics in Garching and the German Center for Astrophysics in Görlitz.

### Your Tasks

- working on the research project's questions (70 %)
- presenting the results at conferences and publishing them in scientific journals (20 %)
- documenting the project and organizing project meetings (10 %)

Employment is conducive to scientific qualification and provides the opportunity for further academic development.

### We offer

- salary according to Remuneration level 13 TV-L
- fixed-term 3 years (§ 2 (1) sentence 1 of the WissZeitVG; in accordance with the provisions of the WissZeitVG and the Agreement on Satisfactory Conditions of Employment, the

### Your Profile

#### We expect

- completed university degree (master's degree or equivalent) in physics, astronomy, or electrical engineering
- good programming skills (Python or C++)
- good English skills (spoken and written)
- interest and enthusiasm for scientific issues
- good communication skills
- independent, autonomous and committed way of working
- cooperative and team-orientated working style

#### Preferred experience and skills

- experience with research in teams
- knowledge of the fundamentals of Bayesian statistics

length of contract may differ in individual cases)

- part-time 65 %
- internal and external training opportunities
- variety of health, consulting and prevention services
- reconcilability of family and work
- flexible working hours
- good transport connection
- collegial working environment
- open and pleasant working atmosphere
- exciting, varied tasks

- knowledge of the fundamentals of radio astronomy

---

## Application Procedure

We are looking forward to receiving your application with two letters of recommendation. To apply, please preferably use our online form via the application button below.

**application deadline: 15.01.2026**

**APPLY NOW**

### Contact

Prof. Dr. Dominik Schwarz  
0521 106-6223  
dschwarz@physik.uni-bielefeld.de

### Postal Address

Universität Bielefeld  
Fakultät für Physik  
Susi v. Reder  
Postfach 10 01 31  
33501 Bielefeld

Bielefeld University has received a number of awards for its achievements as an equal-opportunity employer and has been recognized as a family-friendly university. The university welcomes applications from women. This is particularly true with regard both to academic and technical posts as well as positions in information technology as well as the skilled crafts and trades. Applications are handled according to the provisions of the state statutes on equal opportunity. Applications from suitably qualified handicapped and severely handicapped persons are explicitly encouraged.

At Bielefeld University on request positions can be carried out with reduced working hours as long as this does not conflict with official needs.

