

PhD position (f/m/d) on full-time basis

at the Chair of Special Education in Mathematics

The University of Cologne is one of the largest and most research-intensive universities in Germany, offering a wide range of subjects. With its six faculties and its interfaculty centres, it offers a broad spectrum of scientific disciplines and internationally outstanding profile areas, supported by the administration with its services.

The Chair of Special Education in Mathematics focuses on mathematics learning, especially on mathematical difficulties, their identification, and on support in mathematics learning and teaching. In our research and development activities, we use technology in different ways—e.g., eye tracking, the recording of eye movements, or Artificial Intelligence (AI). The current position has a technological focus, especially on eye tracking and AI, and contributes to the development of an adaptive learning system.

YOUR TASKS

- » Development and optimization of eye tracking
- » Automatized analysis of data streams from eye-tracking experiments in mathematics education
- » Construction of an AI-based system to enhance mathematical abilities, in collaboration with researchers in mathematics education
- » Publications of results in international journals and reports as well as presentations on conferences
- » Participation in data collection activities
- » Driving a research project in close collaboration with team members under the supervision of a project coordinator

YOUR PROFILE

- » A Master's degree in Computer Science, Applied Mathematics, Physics, Cognitive Science or a related field is required at the time of the start of the position
- » Very good programming skills and machine learning knowledge are required
- » A keen interest in computer science and mathematics education are required
- » Experience with eye tracking and relevant software frameworks is desirable
- » Fluent spoken and written command of English is required, German proficiency is a plus
- » Experience in research projects and previous publication activities are a plus

WE OFFER YOU

- » a vivid, inspiring, and qualifying work in a dynamic and innovative team
- » 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 01.10.2021 on a full-time basis (39,83 hours per week). It is limited to 31.08.2024. 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 is committed to equal opportunities and diversity. Women are especially encouraged to apply and will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from people with disabilities / special needs or of equal status.

Please apply online at: <https://jobportal.uni-koeln.de> with proof of the sought qualifications. The reference number is Wiss2106-16. The application deadline is 23.07.2021.

If you have any questions, please contact Prof. Dr. Maike Schindler (maike.schindler@uni-koeln.de).