



UNIVERSITY
OF COLOGNE

Faculty of Management, Economics and Social Sciences

Doctoral Researcher/PhD Student (f/m/x)

Department of Information Systems for Sustainable Society (IS3) – Prof Dr Wolfgang Ketter

We are one of the largest and oldest universities in Europe and one of the most important employers in our region. Our broad range of subjects, the dynamic development of our main research areas and our central location in Cologne make us attractive for students and researchers from around the world. We offer a wide range of career opportunities in science, technology, and administration.

IS3 works on highly interdisciplinary research, drawing from data analytics, decision science, computer science, economics, behavioural science, and machine learning to advance sustainable smart energy and mobility markets.

YOUR TASKS

- » Conduct research on Information Systems, in particular Smart Energy and Mobility Systems, using quantitative methods such as optimization, machine learning, and reinforcement learning
- » Publish results in leading computer science, information systems, and management journals.
- » Participation in general research activities within the Faculty of Management, Economics and Social Sciences
- » Participation in teaching activities with the focus of advanced machine learning (3 in-person semester hours presence, plus pre- and post-work)

YOUR PROFILE

- » Master's degree in information systems, computer science, business management, economics or an affiliated field
- » Profound knowledge in quantitative research methods
- » Profound knowledge in data science and machine learning models as well as programming skills (esp. Python) are highly desirable. Other programming skills (such as Julia, R, Rust, C) are a plus
- » Excellent English skills (GRE/GMAT/TOEFL/IELTS scores are considered)
- » German proficiency is a plus
- » Reinforcement learning and mathematical programming background is helpful

WE OFFER

- » Doctoral studies under the supervision of Prof Ketter
- » A diverse working environment with equal opportunities
- » Support in balancing work and family life
- » Extensive advanced training opportunities
- » Occupational health management offers
- » Flexible working time models
- » Opportunity to work remotely

The University of Cologne promotes equal opportunities and diversity. Women will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from all suitable candidates regardless of their gender, nationality, ethnic and social origin, religion, disability, age, sexual orientation and identity.

The position is available from 1 February 2026 on a part-time basis (29,87 hours per week). The position is to be filled for a fixed term until 31 January 2029. 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.

Please apply online with proof of the required qualifications without photo under: <https://jobportal.uni-koeln.de>. The reference number is Wiss2510-04. The application deadline is 15 December 2025.

For further inquiries, please contact Julius Kuhmann (kuhmann@wiso.uni-koeln.de) or Professor Dr Wolf Ketter (ketter@wiso.uni-koeln.de) and take a look at our [FAQs](#).



HR EXCELLENCE IN RESEARCH