

# Post-Doc / PhD position at KIT within “A Coming Decade - Decadal climate predictions for Europe” consortium

**Karlsruhe Institute of Technology (KIT), Institute of Meteorology and Climate Research**

KIT is a distinguished research university that combines three core tasks – research, education and innovation – into a single mission. With 9,300 employees and almost 25,000 students, it is one of the largest institutions of research and higher education in natural sciences and engineering in Europe. KIT was awarded the title "University of Excellence" within the German Excellence Strategy launched by the federal and state governments on 19 July 2019. In the area of Atmospheric Science, KIT is ranked #1 in Germany by the Shanghai Ranking.

The Institute of Meteorology and Climate Research - Troposphere Research (IMK-TRO) participates in the KIT Centers "Climate and Environment" and "MathSEE (Mathematics in Sciences, Engineering, and Economics)" and contributes significantly to the program "Changing Earth" of the Helmholtz Association. Our Working Group "Regional Climate and Weather Hazards" (<http://www.imk-tro.kit.edu/english/7144.php>) focusses on an integrated analysis of extreme weather and climate events, regional climate change, climate variability and risk assessment.

The goal of the BMBF-project “A Coming Decade - Decadal climate predictions for Europe” (“Coming Decade”) is to significantly improve the German decadal climate prediction system by integrating the latest scientific findings and developing application-oriented and regionalized climate predictions. Moreover, climate services will be developed to support decision-making for the coming years. The “Coming Decade” ensemble decadal prediction system will be based on the ICON model and is planned to be delivered to the German Weather Service by the end of the project.

**We have one open postdoctoral position for 2 years OR a PhD position for 3 years**

The goal is to quantify the **added value of global multi-model-predictions for user-relevant variables**. Decadal predictions from multiple modelling centers (WMO Lead Centre for Annual-to-Decadal Climate Prediction) are used as a reference to test the robustness and skill of the “Coming Decade” prediction system, and to provide robust basic and user-oriented climate information on multi-year timescales. The reliability and uncertainty of the prediction system will be assessed, thus overcoming some of the limitations of the single model approach. The results will facilitate the recalibration and verification of the new system and the development of user specific products.

The KIT PIs are Prof. Dr. Joaquim Pinto, Dipl.-Geophys. Hendrik Feldmann and Dr. Patrick Ludwig.

**Requirements:** For Post-Docs a PhD and for PhD students a MSc in Meteorology, Climate Science, Earth Sciences, or related disciplines. The applicant must be proficient in spoken and written English.

**Additional qualifications:** Experience in statistics, extreme event diagnostics and scientific programming (e.g., python, R, fortran, cdo, Matlab) are required. Ideally experience with global or regional models, decadal prediction, forecast verification. German language skills are helpful but not mandatory.

**The application should contain (all in one PDF):**

- A Curriculum Vitae.
- A cover letter stating your scientific interests and what motivates you to apply for this position.
- A list of scientific publications.
- Contact details (incl. email and telephone number) of two references.

The candidates will be short-listed based on the materials in the application, the top ranked candidates will be interviewed digitally and the references will be collected.

**Salary:** The remuneration is based on the collective agreement of the public service in the remuneration group TVL E13.

**Starting date:** **01-03-2025** or as otherwise agreed.

**Terms and conditions of employment:** The group is based on the research campus of KIT located about 10 km to the North of Karlsruhe city centre.

**Scope of employment:** **2 years Post-Doc 100%** or **3-years PhD student 75%** (with a potential extension in both cases for one more year)

**For further information** about this position please contact: Joaquim Pinto (joaquim.pinto@kit.edu), Hendrik Feldmann (hendrik.feldmann@kit.edu), Dr. Patrick Ludwig (patrick.ludwig@kit.edu)

Please send the documents requested above for the application all in one pdf file by **06 January 2025** to the PIs to the above e-mails.

KIT actively supports equality, diversity and inclusion, and as an equal opportunity employer, KIT explicitly encourages applications from women as well as from all others who will bring additional diversity to the university's research and teaching. Applicants with disabilities will be preferentially considered if suitably qualified.

Are you considering moving to Germany to work at KIT? If so, you will find a lot of information about working and living in Germany at <http://www.intl.kit.edu/ischolar/index.php>. You are also welcome to contact the International Scholars & Welcome Office at [scholar@intl.kit.edu](mailto:scholar@intl.kit.edu).