

The Wegener Center for Climate and Global Change at the University of Graz offers a

### **3-year PhD position in**

#### **Understanding, Reconciling and Communicating Uncertainties in Projections of Extreme Precipitation over the Greater Alpine Region**

We are seeking a highly motivated student to work on the SPIRIT project funded by the Austrian Climate Research Programme. Heavy precipitation is a major natural hazard, but future projections are still highly uncertain. Many data sources about such changes are available, but often with contradictory conclusions at the regional scale. The aim of the SPIRIT project is to understand the influences of large- and small-scale model errors and internal variability on changes of extreme precipitation; to construct a grand ensemble of changes in extreme precipitation that combines different state-of-the-art and cutting-edge model ensembles (including high resolution GCMs and convection permitting RCMs), observational evidence and meteorological expert understanding; and to distil credible information about changes in local extreme precipitation events. The work will be carried out in close collaboration with climate experts and climate service providers from the Austrian weather service ZAMG and contains a strong knowledge transfer and capacity building component for climate services at the regional scale.

The student working on the SPIRIT project will have an MSc or comparable degree in meteorology/atmospheric sciences or a related subject, and will be interested in broadening their view on the interdisciplinary aspects of climate change. Good programming skills in linux/unix environments are required for this project, as well as the will to analyse large ensembles of regional and global climate models, the openness to collaborate with climate service providers from ZAMG, and to proactively train scientific writing and scientific presentations.

We expect the candidate to be self-motivated and, in close collaboration with the main supervisor Prof. Douglas Maraun and colleagues from ZAMG, to develop a research programme, to publish scientific papers, and to present their work at international conferences.

Preferred starting date will be October 2019. Payment will be according to a 75% position of the Austrian Research Fund (ca. 2100 EUR/month gross salary).

The student will join the regional climate research group, lead by Prof. Douglas Maraun, with some ten motivated young scientists working on regional climate variability and change, extreme events, regional climate modelling and the statistical analysis of observational data as well as global and regional climate model ensembles.

The student will furthermore join the interdisciplinary graduate school on climate change, where some 10 faculty members and 20 PhD students from natural sciences, social sciences and humanities work together to improve our understanding of climate change, its impacts, and societal transformation. The graduate school will provide funding for long-term stays at international institutions to collaborate with leading international experts. The project will be advised by Prof. Bruce Hewitson from the University of Capetown.

The Wegener Center and the graduate school are part of the newly established profile shaping area on climate change at the University of Graz.

Graz is a laid back city of 300,000 people in the southern Alpine foothills, just a short drive from skiing resorts and hiking treks, and a three hours drive from the Adriatic sea. The medieval, renaissance and baroque old town is UNESCO World heritage, and Graz is a UNESCO city of design. The city was European Capital of Culture 2003 and hosts an Opera, theatres, various museums and many festivals such as the Austrian film festival, the mountain film festival and several music festivals. The people from Graz enjoy good food and the wine from the rolling vineyards in "Styrian Tuscany" south of the city.

## How to apply - Deadline 7 July 2019

Please submit your application including the reference ACRP SPIRIT and all application documents as a single pdf until 7 July 2019 to [karin.eisner@uni-graz.at](mailto:karin.eisner@uni-graz.at).

Application Documents:

1. a motivation letter
2. an abstract in English of the master thesis including a web-link or ftp-link to an electronic copy of the thesis,
3. a CV including information on previous work experience and publications and a transcript of records,
4. evidence for knowledge in English at level C1 or higher (e.g., suitable IELTS, TOEFL, or EFL certificate and/or brief justification letter summarizing the experience)
5. two letters of recommendation.

The University of Graz strives to increase the proportion of women and therefore encourages qualified women to apply. Especially with regard to academic staff, we welcome applications from persons with disabilities who meet the requirements of the advertised position.

For informal inquiries please contact Douglas Maraun ([douglas.maraun@uni-graz.at](mailto:douglas.maraun@uni-graz.at)).

Doctoral Programme Climate Change:

<https://dk-climate-change.uni-graz.at/en/>

Regional Climate Research Group:  
[climate-research-group/](https://wegcenter.uni-graz.at/en/research/regional-climate-research-group/)

[https://wegcenter.uni-graz.at/en/research/regional-](https://wegcenter.uni-graz.at/en/research/regional-climate-research-group/)

Douglas Maraun:

<https://homepage.uni-graz.at/en/douglas.maraun/>

Graz:

<https://en.wikipedia.org/wiki/Graz>