

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

3-year Postdoc position on

Interactions across scales shaping frontal weather extremes in a changing climate

We are seeking a highly motivated postdoc to work on the international project INTERACT, funded by the Austrian Science Fund FWF. The project will be carried out in collaboration with leading experts in atmospheric and climate dynamics at the Obukhov Institute of Atmospheric Physics and the Shirshov Institute of Oceanology in Moscow, Russia.

Weather fronts are an important meso-scale link between large-scale and regional weather, and are closely linked to extreme weather events. Fronts are embedded into, and interact with large-scale weather systems such as cyclones, which themselves are influenced by large-scale drivers and modes of variability. The vast range of relevant scales makes the simulation of extreme events associated with fronts a challenging task, and climate models in fact have deficiencies at all these scales. The main aim of INTERACT is to understand the role of fronts in scale interactions that shape extreme events in a changing climate.

The main role of the postdoc will be to analyse a hierarchy of climate models and to conduct very-high resolution RCM simulations of individual weather events to understand future changes in frontal dynamics, meso-scale instabilities and associated extreme events. The postdoc will closely collaborate with a PhD student at Wegener Center, who will focus on model evaluation in the present climate. Longer-term research stays with the Russian partners are planned.

The postdoc working on the INTERACT project will have a PhD or comparable degree in meteorology/atmospheric sciences/climate dynamics or a related subject, and will be interested in broadening their view on different climate model types and climatic changes in atmospheric processes across a range of scales. We expect experience in the analysis of large ensembles of climate models and good programming skills in linux/unix environments. We also expect demonstrated experience in mesoscale atmospheric dynamics and/or conducting climate model simulations, as well as a keen interest to acquire proficiency in the corresponding other field.

The postdoc should be open to collaborate with international partners, and to proactively train scientific and transferable skills. S/he should be self-motivated and, in close collaboration with Douglas Maraun, Albert Ossó and Heimo Truhetz from Wegener Center and the Russian partners, develop and oversee a research programme, assist with the PhD supervision, publish scientific papers, and to present their work at international conferences and to international research initiatives.

Preferred starting date will be 1 Sep 2020. Payment will be according to a 100% postdoc position of the Austrian Research Fund (ca. 54000 EUR/year gross salary). The position will be for one year initially and will be extended by further two years conditional on a positive informal review by the project leaders (funding is available for three years).

The successful candidate will join the regional climate research group, lead by Douglas Maraun and Albert Ossó, 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. We collaborate with leading climate scientists across the world. Wegener Center is part of the newly established field of excellence "Climate Change 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 5 July 2020

Please submit your application including the reference FWF INTERACT and all application documents as **a single pdf** until 5 July 2020 to karin.eisner@uni-graz.at and douglas.maraun@uni-graz.at. If you have difficulties meeting the deadline, please contact Douglas Maraun informally.

Application Documents:

1. a motivation letter,
2. an abstract in English of the PhD 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,
4. relevant certificates (in particular MSc and PhD),
5. two letters of recommendation.

Skype interviews (in English) with shortlisted candidates are planned for late June / early July.

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. The Regional Climate Research Group in particular respects and supports the needs of young families.

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

Regional Climate Research Group:	https://wegcenter.uni-graz.at/en/research/regional-climate-research-group/
Climate Change Graz:	https://climate-change.uni-graz.at/en/
Douglas Maraun:	https://homepage.uni-graz.at/en/douglas.maraun/
Graz:	https://en.wikipedia.org/wiki/Graz