The Department of Meteorology and Geophysics of the University of Vienna offers a PhD ("praed-doctoral") position on the "Assimilation of cloud-affected satellite observations in the convection-permitting numerical weather prediction model AROME of the Austrian Weather Service ZAMG"

The planned starting date is 1 November 2022. The announcement is made for three years, whereby the employment relationship is initially limited to 1.5 years and is automatically extended to a total of three years, unless the employer submits a declaration of non-renewal after a maximum of 12 months.

The position will be embedded in the research group of Prof. Martin Weissmann (https://img.uni-vienna.ac.at/en/research/nwp-and-data-assimilation/) and will be part of the Vienna Network for Atmospheric Research (VINAR, https://vinar.univie.ac.at/), a collaboration between the University of Vienna and the Austrian National Weather Service ZAMG (Zentralanstalt für Meteorologie und Geodynamik). The student will have access to data and models used at ZAMG and the research will be conducted in close collaboration with ZAMG.

The PhD student will investigate the potential of the direct assimilation of cloud-affected satellite radiance observations in visible and water vapour sensitive infrared channels in a state-of-the-art convection-permitting limited-area numerical weather prediction (NWP) model. For the first time, the assimilation of visible and infrared observations will be combined in a variational data assimilation (DA) scheme and in a limited-area model over comparably complex terrain (the Alps) to quantify their potential for improving short-range (up to two days lead time) high-resolution NWP forecasts based on observing system experiments.

Extent of Employment: 30 hours/week (75%)

Essential qualifications:
1. Master (or equivalent) degree in Meteorology/Atmospheric Sciences or a related subject
2. Programming experience
3. Good verbal and written communication skills including fluency in English

Desirable additional qualifications:
1. Experience with numerical modelling
2. Knowledge of data assimilation
3. Python and Fortran programming
4. Familiarity with Linux/UNIX environments
5. Familiarity with high-performance computing

If you're interested, please send your CV, the names of two reference persons, and a letter stating why you are interested in the above research topic to our secretariat (img-wien@univie.ac.at) until 10 September 2022.

The University of Vienna aims at increasing the proportion of women at all employment levels and therefore encourages applications by qualified women.