

Federal Office of Meteorology and Climatology MeteoSwiss is looking for a

## **PhD candidate in atmospheric ozone research (STOA-02)**

100%, 4 years, Payerne, Switzerland

MeteoSwiss is the National Weather and Climate Service of Switzerland. On behalf of the Federal Government, MeteoSwiss collects, manages and analyzes weather and climate data, produces forecasts and is engaged in researching and developing tailor-made products and services.

The SNF-funded project **Quantifying past, present and future Stratospheric and Tropospheric Ozone over the Alps and Europe, STOA**, is a bilateral project between Switzerland and Austria comprising partners PMOD/WRC, MeteoSwiss and the University of Natural Resources and Life Sciences (BOKU) in Vienna.

MeteoSwiss (this advert, Ref. **STOA-02**) and PMOD/WRC (Ref. STOA-01) are seeking to recruit two PhD candidates each for a fulltime, 4-year position, starting in October 2024, or by agreement. Financial support is according to SNF guidelines.

### **Your tasks (STOA-02)**

- Build a merged dataset from time series of ozone profiles measured by Dobson and Brewer spectrophotometers, microwave radiometers and balloon-borne ozone sounding. Characterize the uncertainties of the single datasets and of the merged dataset (Bayesian composite).
- Derive trend estimates of the ozone profile datasets using state of the art statistical tools such as Multi Linear Regression and Dynamical Linear Modelling from Alpine and European stations.
- Derive stratospheric and tropospheric ozone trends from combining ozone profiles and tropospheric ozone modelling results in collaboration with the research team.
- Present project results at international conferences and workshops, write and publish your research in peer-reviewed scientific journals publications.

### **Your profile**

- You hold a MSc degree in atmospheric physics, physics or natural sciences.
- You have good programming skills in Python, Matlab, or similar high-level programming environment.
- Experience in analysing atmospheric remote sensing data sets and related statistical tools is an asset.
- You have excellent written and oral English skills.

### **We offer**

- An attractive workplace at a Swiss Federal Office (Payerne) in a small and dynamic scientific team.
- You will join an international team of scientists with state-of-the art expertise in remote sensing of atmospheric ozone, statistical time series analyses, and Earth system modelling to help answer key questions concerning the state of the ozone layer and its past, present and future evolution.
- You will be hired by the PMOD/WRC. You will be affiliated to the Oeschger Centre for Climate Change Research (OCCR) and join the Graduate School of Climate Sciences at the University of Bern in the research group of Prof. Dr. Gunter Stober.

We respect and support the compatibility of professional and private life and promote individual development opportunities. We promote equality of opportunity, value diversity and nurture a working and learning environment.

### **Application information**

Informal inquiries can be addressed to Dr. Eliane Maillard Barras, co-PI of the SNF STOA project at [eliane.maillard@meteoswiss.ch](mailto:eliane.maillard@meteoswiss.ch) or +41 58 460 95 03.

Please send your complete application using the reference **STOA-02** including motivation Letter, curriculum vitae, list of publications, and name and contact details of at least 2 references as a single pdf file to the head of PMOD/WRC human resources, [Eliane.Tobler@pmodwrc.ch](mailto:Eliane.Tobler@pmodwrc.ch), before 26 July 2024.

The interviews will be held either physically at Payerne or online via suitable remote video platforms.