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# DVAS - Data Visualization and Analysis Software: processing and analysis of the radiosounding data for the next WMO Upper-Air Instruments Intercomparison UAI2021

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# WMO Upper-Air Instruments Intercomparison UAI2021

**What:** international comparison of upper-air instrument performances.

Based on laboratory radiosonde test measurements, and multi-payload radiosonde flights in combination with ground-based remote sensing and in-situ aircraft measurements.

**When & Where:** December 2020 (lab); August 2021 (flights) @ Lindenberg, Germany.

**Who:** DWD (lead), MeteoSwiss, under the auspices of the WMO.

## Primary goals:

1. To test and evaluate as many operational radiosonde systems as possible at the same location and time.
2. To characterize the individual radiosondes with respect to their reproducibility and to determine the uncertainty of the different measured parameters.
3. To compare the different radiosonde systems to characterized reference systems employed in the GCOS Reference Upper Air Network (GRUAN).
4. To characterize measurement errors and uncertainties of radiosonde sensors under laboratory conditions.
5. To demonstrate the added-value of surface-based remote-sensing systems for upper-air measurements.
6. To evaluate the capability of each system participating in the intercomparison to reach the uncertainty targets as defined in OSCAR (<https://www.wmo-sat.info/oscar/>).



# Data Visualization and Analysis Software

## DVAS

**What:** a new tool for the analysis of upper-air measurement campaigns with a special focus on radiosondes.

**Core idea:** assess upper air system performances using GCOS Reference Upper Air Network (GRUAN) reference data products flown simultaneously.

### Code characteristics:

- open-source Python code, publicly available, fully documented, DOI-tagged releases
- products in netCDF3 “classic” with CF & GRUAN conventions
- modular structure: both individual routines & pre-packaged high-level campaign analysis recipes are user accessible

**Who:** development lead at MeteoSwiss in Payerne, Switzerland.

**When:** development ongoing, full code release expected in 2021.

**To know more about DVAS, its content, status, etc... :** [frederic.vogt@meteoswiss.ch](mailto:frederic.vogt@meteoswiss.ch)



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