

## Satellite inspired hydrology in an uncertain future: a H SAF and HEPEX workshop



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Type: **Poster presentation**

### Automated data (pre)processing for hydrological model applications

eWaterCycle II seeks to create an online environment where users can easily work with a wide variety of hydrological models, without the hassle of installing, obtaining forcing data, and setting up these models. Ultimately, the goal is to advance the state of FAIR and open science in hydrological modelling.

A big hurdle that was identified during a dedicated workshop earlier this year is the preprocessing of forcing data. Different datasets have discrepant variable names, spatial and temporal resolutions, etc. Moreover, many models make assumptions about the format and meaning of the forcing data. Making the ends meet is a laborious process that lacks transparency.

To overcome this hurdle we have created a common preprocessing system for hydrological modelling, based on technology from the climate sciences, in particular ESMValTool and Iris. Internally, the data are converted to CMOR standards. Thereafter, they easily be reformatted for specific hydrological models. The system keeps track of provenance information to ensure transparency and reproducibility. Currently the pre-processing pipeline supports a.o. ERA5 and ERA-Interim reanalysis data. In the near future, we plan to add support for satellite data as well, as this is paramount to the data-assimilation capabilities that we will build into the eWaterCycle platform.

#### Which session would you like to present in?

1. Hydrological validation and benchmarking

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