

# **International Conference on Opportunistic Sensing of Precipitation - OpenSense**

**Wednesday, June 25, 2025 - Thursday, June 26, 2025**

**German Weather Service, Offenbach, Germany**

## **Scientific Program**

**The topics of the 1st International Conference on Opportunistic Sensing of Precipitation consist of data and processing methods of opportunistic sensors, the evaluation and application of OS-based precipitation information as well as broader aspects from stakeholder involvement and and public benefit. We invite contribution on following topics.**

## **OS data acquisition, management & standardization**

- ~ New data sets at regional/country-wide scale
- ~ Novel DAQ techniques, Real-time data acquisition
- ~ Advancements in Sensing techniques (CMLs, SMLs, cameras, other OS sensors)
- ~ Operational pipelines for OS data applications

## **Processing methods**

- ~ Novel processing methods
- ~ Reducing uncertainty and improving the reliability of OS QPE
- ~ QC algorithms
- ~ Using ML/DL techniques for data processing
- ~ Open software packages for data processing

## **Comparative performance analysis and uncertainty assessment**

- ~ Theoretical studies
- ~ Simulation experiments
- ~ Empirical performance analysis
- ~ Uncertainty assessment

## **OS data merging**

- ~ Merging with standard remote sensing techniques (radars, satellites) or rainfall stations
- ~ Interpolation methods of OS concerning uncertainties or geometric properties

## **Application of OS rainfall data**

- ~ Application for nowcasting
- ~ Hydrological applications on different scales
- ~ Rainfall products and applications in ungauged regions
- ~ Operational applications & impact-based warnings in hydrology and meteorology
- ~ NWP and data assimilation

## **Bridging the gap**

- ~ Stakeholder exchange
- ~ Business models
- ~ Impact based-warnings and communication
- ~ From Science to Public Benefit