# 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

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