

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