

CALL FOR SESSIONS

ADVANCEMENTS IN MONITORING TECHNIQUES, MODELS, AND METHODS TO ACQUIRE THE RELEVANT DATA FOR FORECASTING AND EARLY WARNING SYSTEMS

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ABSTRACT SESSION

Floods and droughts are the most destructive water-related natural hazards, causing significant loss of human lives, infrastructure damages, and economic losses. Hydrological hazards are becoming more frequent and severe due to climate change and variability. Changes in the characteristics of hydrological hazards, vulnerability, and exposure are of critical factors in determining risks for infrastructure and society. To manage these risks, it is essential to develop advanced monitoring techniques, models, and methods to acquire the relevant data for forecasting and early warning systems. This proactive planning would enable hazard prevention and mitigation of disaster risks caused by extreme hydrological events. In this direction, this session focuses on the statistical, ground, remote sensing, and physically-based techniques for monitoring, modeling, and forecasting hydro-meteorological variables relevant to floods, droughts, and/or water scarcity. It mainly aims to bring together scientists, engineers, policymakers, and stakeholders in the fields of hydrology, meteorology, water resources, and flood and drought risk management. Discussions would include the impacts of climate change on hydrological extreme events and feedback with society.