

Dear Colleague,

hereby we would like to invite you to the

RealPEP Online Conference 2020

Precipitation and Flash Flood Prediction from Minutes to Days

October 5-7, 2020; Website <https://indico.scc.kit.edu/event/883/>

Flash floods in small to meso-scale catchments and intense precipitation over cities from severe local storms pose increasing threats to our society. For the timely prediction of such events, the value of high-resolution and high-quality quantitative precipitation estimation and corresponding forecasts cannot be overrated.

Seamless predictions harmonizing nowcasting and NWP across forecast lead times from minutes to days would greatly help to improve the value and efficiency of warnings. We address recent ideas and achievements along the process chain from quantitative precipitation estimation (QPE), observation-based nowcasting (QPN), combination of nowcasting with NWP and flash-flood prediction (FFP). Area-covering and high-resolution polarimetric weather radar observations currently provide core information for QPE/QPN like precipitation intensity, hydrometeor types, and wind gusts augmented with satellite and lightning observations.

With the perspective to enable/improve seamless predictions of surface precipitation and flash floods from the time of observation to days ahead, potential topics of this session are advances in quantitative high-resolution precipitation retrieval including promising sensor synergies, advances in nowcasting including life cycle information from radar and satellite observations, advances in NWP data assimilation for short-term forecasts, concepts for merging observation-based QPN with NWP, and concepts to transfer the uncertain precipitation estimates over the forecast range into river runoff and flash-flood predictions.

Conference Format

The RealPEP online conference 2020 will be carried out using the German Research Network DFN. Talks are by invitation only and we are currently in a process of putting together an exciting programme with contributions by both international experts and young researchers. The talks will be streamed, while discussions take place in a range of targeted discussion rooms, moderated by the RealPEP research group principle investigators and research scientists.

Please register at <https://indico.scc.kit.edu/event/883/> if you intend to take part to be provided with links and further information.

Your RealPEP Online Conference 2020 Organizing Committee

Silke Troemel, Christian Chwala, Julius Polz, Thomas Poméon, Cintia Carbajal Henken, Ricardo Reinoso Rondinel, Elisabeth Bauernschubert, Clemens Simmer, Roland Potthast

German Science Foundation (DFG) Research Group RealPEP

RealPEP is a German Science Foundation funded Research Group with Uni Bonn, Research Center Jülich, Karlsruhe Institute of Technology (KIT), Freie Universität Berlin and DWD as main partners. It is closely linked to DWD activities of the SINFONY project with 25 scientists working on the convergence of nowcasting and NWP. Main Topics are Precipitation and Flood Estimation and Forecasting from Minutes to Days.