Geophysical Research Abstracts Vol. 19, EGU2017-14889, 2017 EGU General Assembly 2017 © Author(s) 2017. CC Attribution 3.0 License.



HEPEX Data Assimilation Inter-comparison Experiment

Dirk Schwanenberg (1,2), Rodolfo Alvarado Montero (2), Albrecht Weerts (3), Marie-Amélie Boucher (4), and Paolo Reggiani (5)

(1) KISTERS AG, Aachen, Germany (dirk.schwanenberg@kisters.de), (2) University of Duisburg-Essen, Essen, Germany (dirk.schwanenberg@uni-due.de, rodolfo.alvarado-montero@uni-due.de), (3) Deltares, Delft, The Netherlands (albrecht.weerts@deltares.nl), (4) Université du Québec à Chicoutimi, Chicoutimi, Canada (marie-amelie_boucher@uqac.ca), (5) University of Siegen, Siegen, Germany (paolo.reggiani@uni-siegen.de)

There is a rapidly increasing number of remote sensing products with a potential application in operational hydrology. In combination with ground observations, these products may improve the identification of hydrological systems at forecast time as a basis for more accurate forecasts including the quantification of uncertainty. Although many data assimilation approaches exist for operational hydrology, there is a lack of inter-comparisons between these approaches. This effort intends to fill in this gap by the implementation of the HEPEX Data Assimilation Inter-comparison Experiment (HEPEX-DA).

The main purposes of HEPEX-DA are i) to learn from each other, share, test, compare and improve techniques and expertise related to data assimilation (DA) for hydrological models, ii) to implement and employ an easy-to-use and modular test bed for data assimilation experiments with freely available or open source data, models and DA techniques, iii) to assess the performance of data products from ground observation or remote sensing and their added value in DA, iv) to address the added value of DA in forecasting applications, v) to encourage reproducibility of results and vi) to disseminate results in the scientific community and to supply enhanced tools for operational forecasting systems.

We present the current status of the HEPEX-DA test bed and on-going experiments, invite researcher to join this effort and outline future scientific work.