IUGG – HW17: Hydrological Forecasting and Predictive Uncertainty: Advances and Challenges of Transferring Science into Operational Practice

Convener: Maria-Helena Ramos (France)

Co-convener(s): Walter Collischonn (Brazil), Fredrik Wetterhall (), Andy Wood (USA), Jan Verkade (Netherlands), Jutta Thielen (Italy), Massimiliano Zappa (Switzerland), Marco Borga (Italy), Francois Anctil (Canada), Qingyun Duan (China), Q.J. Wang (Australia)

Oral presentations:

Session	Lecture	Start Time	First Author	Title
Chairperson Session 1: Qingyun Duan				
1	1	8:30	Rodolfo Alvarado Montero	Assimilation of Remote Sensing Data into a Conceptual Rainfall-Runoff Model for Hydrological Forecasting Applications
1	2	8:45	Matthieu Lafaysse	Ensemble forecasting of snowpack conditions and avalanche hazard
1	3	9:00	Mabrouk Abaza	Exploration of Ensemble Kalman filter streamflow assimilation in snow dominated watersheds
1	4	9:15	Beatriz Revilla-Romero	Data assimilation of satellite-derived surface water extent into a global rainfall-runoff model
1	5	9:30	Giriraj Amarnath	Rainfall-runoff inundation analysis of the 2011 Sri Lanka flood in the Mudeni Aru River Basin
1	6	9:45	Gokcen Uysal	Assessment of Ensemble Forecast Uncertainty with Multi-Models for a Mountainous Basin in Turkey
Break 10:00-10:30				
Chairperson Session 2: Fredrik Wetterhall				
2	1	10:30		User-defined development priorities for global scale flood forecasting
2	2	10:45	Stephens, E.	
2	3	11:00	Open discussion	
2	4	11:15	Feyera Hirpa	Assessing the use of reforecast climatology in global flood forecasting
2	5	11:30	Roger Pulwarty	Improved use of weather and climate information in managing wine, fish, and water in California's Russian River Basin
2	6	11:45	Open discussion	
Break 12:00-13:30				

Chairperson Session 3: Maria-Helena Ramos					
3	1	13:30		Andy Wood	A real-time, automated demonstration and evaluation of short to seasonal range streamflow forecasting in US watersheds
3	2	13:45		Massimiliano Zappa	Towards real-time post-processing and online verification of HEPS in a small-scale Swiss basin
3	3	14:00		Huiling Yuan	Improved post-processing of operational precipitation forecasts in hydrologic catchments based on NCEP GEFS reforecast data
3	4	14:15		Yiming Hu	Preserving temporal-spatial structure in ensemble precipitation predictions based on a modified empirical copula method
3	5	14:30		Hamid Moradkhani	A New Post-processing Approach to Generate Ensemble Precipitation Forecast for Hydrologic Applications
3	6	14:45		Marie Courbariaux	Bayesian modeling of rainfall-runoff uncertainty to improve probabilistic forecasts
Break 15:00-16:30					
Chairperson Session 4: Massimiliano Zappa					
4	1	16:30		Julie Demargne	Hydrologic ensembles based on COSMO-DE-EPS precipitation forecasts for flash flood warnings at ungauged basins
4	2	16:45		James Bennett	Assessing the performance of ensemble streamflow forecasts produced by the rainfall forecasts from Australian numerical weather prediction models
4	3	17:00	Linna Zhao		Comparisons of Probabilistic Flood Prediction based on the ensemble weather prediction
4	4	17:15	Fredrik Wetterhall		Seasonal hydrological ensemble predictions over Europe
4	5	17:30	Ilias Pechlivanidis		E-HYPE: How variations in continental scale precipitation affect pan-European forecasts for flood warning, seasonal anomalies and inflows to seas
4	6	17:45	James Bennett		Ensemble forecasts of monthly streamflows out to 12 months using climate forecasts as inputs

Posters:

Ensemble streamflow simulations based on multiple parameter sets in the Huaihe River basin
Ruochen Sun (China)

A Demonstration of BNU Hydrological Ensemble Prediction System in the Yalong River Basin
Qingyun Duan (China)

Ensemble river flow prediction by coupling a distributed hydrological model and an analogue-based ensemble meteorological prediction system
Philippe Crochet (Iceland)

Research and operational efforts to face the challenge of providing forecasts with uncertainties in France in 2015

Carina Furusho (France)

Evaluating the effects of lake and reservoir parameterization in a global river routing model on uncertainty of daily river discharge.

Beatriz Revilla-Romero (Italy)

Probabilistic hydrological forecasting on the Rhône River: How to ensure spatial and temporal coherence?

Joseph Bellier (France)

A long-term simulation of regional climate model using three reanalysis datasets and its evaluation with river runoffs in Japan

Xieyao Ma (Japan)

Development of a drought forecasting system and reservoir management model for water supply: Case-study of the Arzal Dam (Brittany, France)

Louise Crochemore (France)