# Short-Range Hydrometeorological Forecasting @ IAHS

## ORALS

**Wednesday, July 10th, 13:30 - 15:00, 513B**

**Session title:** H15a - Short-Range Hydrometeorological Forecasting
**Session type:** IAHS (Hydrology)
**Track:** H15

13:30 - 14:00
***IUGG19-1574: Statistical post-processing of ensemble forecasts of the height of new snow***
*Solicited Speaker:* M. Lafaysse, France

14:00 - 14:15
***IUGG19-3282: Statistical post-processing experiments of multi-ensemble weather forecasts over river basins managed by Hydro-Québec***
*Speaker:* L. Perreault, Canada

14:15 - 14:30
***IUGG19-3489: A data assimilation technique to foster model cooperation within a hydrologic multimodel ensemble***
*Speaker:* A. Thiboult, Canada

14:30 - 14:45
***IUGG19-2427: Ensemble flood simulation for a small dam catchment in Japan using 1600 member 4D-EnVAR predicted rainfalls***
*Speaker:* K. Kobayashi, Japan

14:45 - 15:00
***IUGG19-0528: AN INTERCOMPARISON OF STATISTICAL POST-PROCESSING METHODS FOR SHORT-RANGE PRECIPITATION FORECASTS***
*Speaker:* Q. Duan, China

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**Thursday, July 11th, 08:30 - 10:00, 516E**

**Session title:** H15b - Short-Range Hydrometeorological Forecasting
**Session type:** IAHS (Hydrology)
**Track:** H15

08:30 - 08:45
***IUGG19-3217: A New Experimental 2D Hydrodynamic Prediction System for the St. Lawrence River and Fluvial Estuary***
*Speaker:* P. Matte, Canada

08:45 - 09:00
***IUGG19-1016: OpenForecast: Development, Verification, and Value of the First Open and Operational Runoff Forecasting System in Russia***
*Speaker:* G. Ayzel, Germany

09:00 - 09:15
***IUGG19-1137: A Cross-Scale, Hydro-Meteorological Forecast Evaluation of National Water Model Forecasts of the May 2018 Ellicott City, MD Flood***
*Speaker:* F. Viterbo, USA

09:15 - 09:30
***IUGG19-3252: Implementation of ECCC's GEM-Hydro Streamflow Forecasting System***
*Speaker:* É. Gaborit, Canada

09:30 - 09:45
***IUGG19-3816: Joint river flow and precipitation ensemble verification with limited record lengths: considerations and strategies***
*Speaker:* S. Anderson, United Kingdom

09:45 - 10:00
***IUGG19-4681: Real-time Flood Forecasting with the GRP Rainfall-runoff Model: a Fifteen-year Experience in France***
*Speaker:* J. Viatgé, France

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**Thursday, July 11th, 13:30 - 15:00, 516E**

**Session title:** H15c - Short-Range Hydrometeorological Forecasting
**Session type:** IAHS (Hydrology)
**Track:** H15

13:30 - 13:45
***IUGG19-3689: How the Link between Hydrological Forecast Quality and Economic Value is Connected to Reservoir Capacity in the Hydropower Sector***
*Speaker:* M. Cassagnole, France

13:45 - 14:00
***IUGG19-4798: Machine and Deep Learning tools in the Flood Early Warning Systems Development***
*Speaker:* D. Brochero, Canada

14:00 - 14:15
***IUGG19-4495: Enhancement of WRF-Hydro Model for Flood Prediction Using the Ensemble Data Assimilation: Case Study of Hurricane Harvey in Southeast Texas***
*Speaker:* H. Moradkhani, USA

14:15 - 14:30
***IUGG19-1042: Reservoir water level forecasting in a medium-sized Hungarian catchment***
*Speaker:* E.D. Nagy, Hungary

14:30 - 14:45
***IUGG19-4041: Real-Time Inflow Forecasting System Development for Operational Decision-Making***
*Speaker:* M.N. Khaliq, Canada

# POSTERS

**Wednesday, July 10th, 15:00 - 16:30, 220DE**

**Session title:** H15 - Posters - Short-Range Hydrometeorological Forecasting
**Session type:** Poster Session
**Track:** H15

### *H15p-433: Comparison of Ensemble Precipitation Forecasts, Observation Datasets and Models for Enhanced Flood Forecasting*

F. Awol[1], P. Coulibaly[2].
[1]McMaster Univeristy, Civil Engineering, Hamilton, Canada.
[2]McMaster University, Jointly in School of Geography and Earth Sciences and Department of Civil Engineering, Hamilton, Canada.

### *H15p-434: Data Assimilation approach for integrating satellite-based water storage changes into a hydrology land-surface model in Canadian basin*

A. Bahrami[1], K. Goïta[1], R. Magagi[1], B. Davison[2], S. Razavi[3], M. Elshamy[4], D. Princz[2].
[1]University of Sherbrooke, Applied geomatics, Sherbrooke, Canada.
[2]Environment of Canada, Environment and Climate Change Canada, Saskatoon, Canada.
[3]University of Saskatchewan, School of Environment and Sustainability, Saskatoon, Canada.
[4]University of Saskatchewan, Global Institute for Water Security, Saskatoon, Canada.

### *H15p-435: Short-term Ensemble Water Level Forecasts: Event-based Evaluation of a River Model Coupled to a Hydrometeorological Ensemble Prediction System*

M.A. Bessar[1], F. Anctil[1], P. Matte[2].
[1]Université Laval, Département de génie civil et de génie des eaux, Québec, Canada.
[2]Environnement et Changement climatique Canada, Recherche en météorologie, Québec, Canada.

### *H15p-436: Sensitivity of the Weather Research and Forecasting (WRF) Model to Downscaling Extreme Events over Northern Tunisia*

S. Dhib[1], V. Homar Santaner[2], Z. Bargaoui[1], M.D.M. Vich[2].
[1]Université de Tunis El Manar, Ecole nationale d'ingénieurs de Tunis, Tunis, Tunisia.
[2]Universitat de les Illes Balears, Physics, Palma de Mallorca, Spain.

### *H15p-437: A Method to Extend Temporal Coverage of High Quality Precipitation Datasets by Calibrating Reanalysis Estimates*

Y. Li[1], Q. Wang[2], H. He[1], Z. Wu[1], G. Lu[3].
[1]Hohai University, College of Hydrology and Water Resources, Nanjing, China.
[2]Department of Infrastructure Engineering, The University of Melbourne, Melbourne, Australia.
[3]College of Hydrology and Water Resources, Hohai University, Nanjing, China.

### *H15p-438: Assessing the skill of hydrologic river stage forecasts in Iowa*

F. Quintero[1], W. Krajewski[1], B. Seo[1].
[1]University of Iowa, Iowa Flood Center, Iowa City, USA.

### *H15p-439: MESH streamflow forecasting system adjusted for the mountainous topography of the Yukon River Basin.*

D. Richard[1], J.W. Pomeroy[1], B. Davison[2], D.G. Princz[2], Z. Tesemma[1], Y. Loukili[1], M. Elshamy[3], K. Shook[1], J.R. Janowicz[4], A. Pietroniro[2].
[1]University of Saskatchewan, Centre for Hydrology - Department of Geography and Planning, Saskatoon, Canada.
[2]National Hydrology Research Centre - Environment and Climate Change Canada, National Hydrological Service, Saskatoon, Canada.
[3]University of Saskatchewan, Global Institute for Water Security, Saskatoon, Canada.
[4]Yukon Environment, Water Resources Branch, Whitehorse, Canada.

### *H15p-440: What have we learned comparing in the loop and out of the loop hydrologic prediction systems?*

P. Richard[1].
[1]Université Laval, Département de génie civil et des eaux, Québec, Canada.

### *H15p-441: Continental Ensemble Streamflow Prediction System for Australia*

J. Bennett[1], D. Robertson[1], P. Hapuarachchi[2], D.L. Shrestha[1], A. Schepen[3].
[1]CSIRO, Land & Water, Clayton, Australia.
[2]Bureau of Meteorology, Water Forecasting Services, Docklands, Australia.
[3]CSIRO, Land & Water, Dutton Park, Australia.

### *H15p-442: Operational Hydrological Prediction System over Great Lakes and St. Lawrence River at Environment and Climate Change Canada (ECCC)*

Y.L. Shin[1].
[1]Meteorological Service of Canada, Environment and Climate Change Canada, Dorval Quebec, Canada.

### *H15p-443: Ensemble Flood and Its Components Forecasting over The Yarlung Zangbo River Basin, China*

Y.P. Xu[1], L. Liu[1], P. Suli[1], Z. Bai[1].
[1]Institute of Hydrology and Water Resources, Civil Engineering and Architecture- Zhejiang University, Hangzhou, China.