

**HEPEX Workshop on
Seasonal Hydrological Forecasting
21-23rd September 2015**



WORKSHOP AGENDA

(update: 14 Sep 2015)

Day 1: 21st September 2015 (Monday)		
08.30 - 09.00	Registration	
09.00 - 09.10	Welcoming note from SMHI	Ilias Pechlivanidis and Berit Arheimer
09.10 - 09.20	Presentation of HEPEX and workshop aims	Fredrik Wetterhall
Session 1	User needs, communication and decision making Chair: Ilias Pechlivanidis	
09.20 - 09.50 Keynote talk	Processing weather forecasts for hydrological ensemble forecasting and decision making in hydropower	Erik Tjøtta
09.50-10.10	Local-scale early warnings for drought can they increase community resilience?	Lotta Andersson
10.10 - 10.30	Poster short-introductions	
10.30 - 11.00	Coffee break / Poster display	
Session 2	Climate and water services using seasonal forecasts Chair: Fredrik Wetterhall	
11.00 - 11.20	Linking seasonal forecasts to user needs in the Limpopo basin in southern Africa	Micha Werner
11.20 - 11.40	Towards a seasonal forecasting service for the German waterways - Requirements, approaches and potential products	Dennis Meissner
11.40 - 12.15	Discussion	
12.15 - 12.30	Group Photo	
12.30 - 13.30	Lunch	
Session 3	Towards operational monthly to seasonal forecasting systems Chair: Micha Werner	
13.30 - 14.00 Keynote talk	Hydrological Outlook UK: an operational river flow and groundwater level forecast at monthly to seasonal scale	Christel Prudhomme
14.00 - 14.20	Evaluation of a multi-model seasonal hydrological forecast prototype for the spring flood period in Sweden	Kean Foster
14.20 - 14.40	A seasonal low-flow forecasting and water management system to support reservoir management under multiple water uses	Louise Crochemore
14.40 - 15.00	Seasonal and short-term forecasting in the Upper Maule basin, Chile	Roar Jensen
15.00 – 15.30	Coffee break / Poster display	
15.30 - 17.00	Workgroup/discussion: What data needs for what uses in the water sector?	Chairs: Christel Prudhomme Ilias Pechlivanidis
17.00 - 19.00	Ice Breaker	

Day 2: 22nd September 2015 (Tuesday)		
Session 4	Improving skill of seasonal forecasts	
		Chair: Berit Arheimer
09.00 - 09.30 Keynote talk	Upskilling – Uncertainty reduction and representation in seasonal streamflow forecasting	QJ Wang
09.30 - 09.50	Development and applications of the calibration, bridging and merging (CBAM) method for post-processing GCM seasonal climate forecasts	Andrew Schepen
09.50 - 10.10	Multisite downscaling of seasonal predictions to daily rainfall characteristics over Pacific-Andean river basins in Ecuador and Peru using a non-homogenous hidden Markov model	Luis Pineda
10.10 - 10.30	Value of in-situ and satellite based snow observations for improving seasonal runoff predictions	David Gustafsson
10.30 - 11.00	Coffee break / Poster display	
11.00 - 12.30	Workgroup/discussion: Creating a HEPEX testbed of seasonal hydrologic prediction I: What are we interested in studying? <i>Contribution by Andy Wood: Example from a small experiment at NCAR, USA</i>	Chairs: Maria-Helena Ramos Massimiliano Zappa
12.30 - 13.30	Lunch	
Session 5	Quality and predictability of seasonal predictions	
		Chair: QJ Wang
13.30 - 14.00 Keynote talk	Understanding seasonal hydrologic predictability using a variational ensemble streamflow predictability assessment (VESPA)	Andy Wood
14.00 - 14.20	Towards using subseasonal-to-seasonal (S2S) extreme rainfall forecasts for extended-range flood prediction	Christopher White
14.20 - 14.40	Contributions of soil conditions in the occurrence of 2003 and 2010 heat waves	Chloé Prodhomme
14.40 – 15.00	Developing the skill of seasonal to multi-annual climate prediction	Ralf Döscher
15.00 – 15.30	Coffee break / Poster display	
15.30 – 17.00	Workgroup/discussion: Creating a HEPEX testbed of seasonal hydrologic prediction II: How to setup a community experiment?	Chairs: Andy Wood Fredrik Wetterhall Maria-Helena Ramos
17.00 – 18.00	Social sport activity or Visit to SMHI (Group I)	
18.00 – 19.00	Free time	
19.00 - 22.00	Dinner	

Day 3: 23rd September 2015 (Wednesday)		
Session 6	Sub-seasonal to seasonal predictions and applications in hydrology Chair: Christopher White	
09.00 – 09.20	Ensemble spring flood forecasting in Sweden: ECMWF vs. climatology	Jonas Olsson
09.20 – 09.40	Ensemble seasonal hydrological forecasting in Europe: ECMWF vs. climatology	Ilias Pechlivanidis
09.40 – 10.00	Extended-range probabilistic forecasts of snow water equivalent and runoff in mountainous areas	Stefanie Jörg-Hess
10.00 – 10.20	Seasonal hydrological ensemble forecasts over Europe	Louise Arnal
10.20 - 10.40	Seasonal forecasting of European river discharge: Hindcast verification of VIC and LPJML models driven by ECMWF System4	Wouter Greuell
10.40 - 11.00	Coffee break / Poster display	
11.00 – 12.15	Discussion: Creating a HEPEX testbed of seasonal hydrologic prediction - Report back from discussions - Science Plan & Funding opportunities	Chairs: Andy Wood Fredrik Wetterhall Maria-Helena Ramos
12.15 - 12.30	Closing – Wrapping up	Ilias Pechlivanidis
12.30 - 13.30	Visit to SMHI (Group II) / Lunch	
End of workshop		

List of posters

<i>Title</i>	<i>First author</i>
Artificial neural networks in forecasting groundwater level of the mid Pliocene aquifer in Mekong Delta, Vietnam	Vu Thi Huong
Drought forecasting using statistical methods	Doug Richardson
Downscaling of extended-range and seasonal meteorological predictions for use in an ensemble hydrometeorologic forecast chain	Samuel Monhart
HEPS4Power – Extended-range Hydrometeorological ensemble predictions for improved hydropower operations and revenues	Massimiliano Zappa
Skilful seasonal predictions of Baltic Sea ice cover	Alexey Yu Karpechko
Seasonal hydrological forecasting over Europe: prospects and applications	Louise Arnal
Forecasting low flows and droughts in Sweden	Henrik Spångmyr
Benchmarking different approaches for harnessing predictability in climate and hydrologic initial conditions for seasonal runoff prediction	Andy Wood
Seasonal forecasting of reservoir inflows using remotely sensed precipitation estimates in data sparse regions	Sam Dixon

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Organizing and scientific committee: Ilias Pechlivanidis (SMHI), Berit Arheimer (SMHI), Fredrik Wetterhall (ECMWF), Andy Wood (NCAR), Maria-Helena Ramos (IRSTEA)