



# HEPEX & EC-HEPEX

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A community of practice for the advancement  
of hydrologic ensemble predictions

2023-09-13

**#HEPEX**

**[www.hepex.org](http://www.hepex.org)**

# About



- Originally, “Hydrologic Ensemble Prediction EXperiment”
- Began in 2004: ECMWF workshop jointly organized with the US National Weather Service (NWS) and the European Commission (EC JRC)
- EC-HEPEX began in 2021: with 32 ECS and young professionals from 17 countries meeting to frame what EC-HEPEX should look like
- Today, a global community of researchers and practitioners (with an unfunded/volunteer effort since its creation) seeking to advance the science and practice of hydrological forecasting and its use in impact- and risk-based decision making
- Activities:
  - Workshops / Special sessions at larger conferences (e.g. AGU, EGU...)
  - Blog portal (chief editor Rebecca Emerton, Univ. of Reading)
  - Mailing list (> 650 subscribers)
  - Online resources: webinars, games, lectures

# Mission



*“To demonstrate the added value of hydrological ensemble prediction for operational water resources management, risk assessment and emergency management to make decisions that have important consequences for economy, environment, and public health and safety.”*



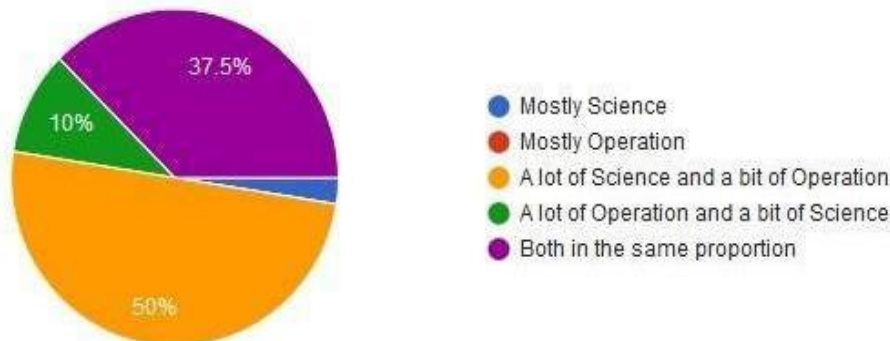
# Connecting the dots



- Connecting people, disciplines and efficient techniques
- Fostering global partnerships, sharing knowledge and, at the same time, identifying knowledge gaps on flood forecasting, flood risk and drought management and water resources planning

*How do we connect better?*

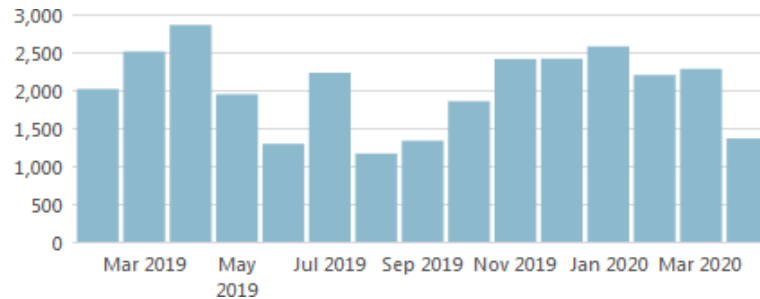
Connecting data service providers and operational forecasters, system developers and forecasters, decision makers and society, etc.



# At a glance



- > 650 subscribers to the mailing list
- Blog running since April 2013
- An average of 200 views per blog post; 2000 views per month



Participants of the HEPEX workshop in Melbourne, Australia, 2018

April 2020:

At a Glance

369 Posts

554 Comments

41 Pages

#HEPEX

>3000 Tweets

1148

Followers

- >1.5 hours of music





[www.hepex.org](http://www.hepex.org)



HEPEX

HEPEX BLOG ▾

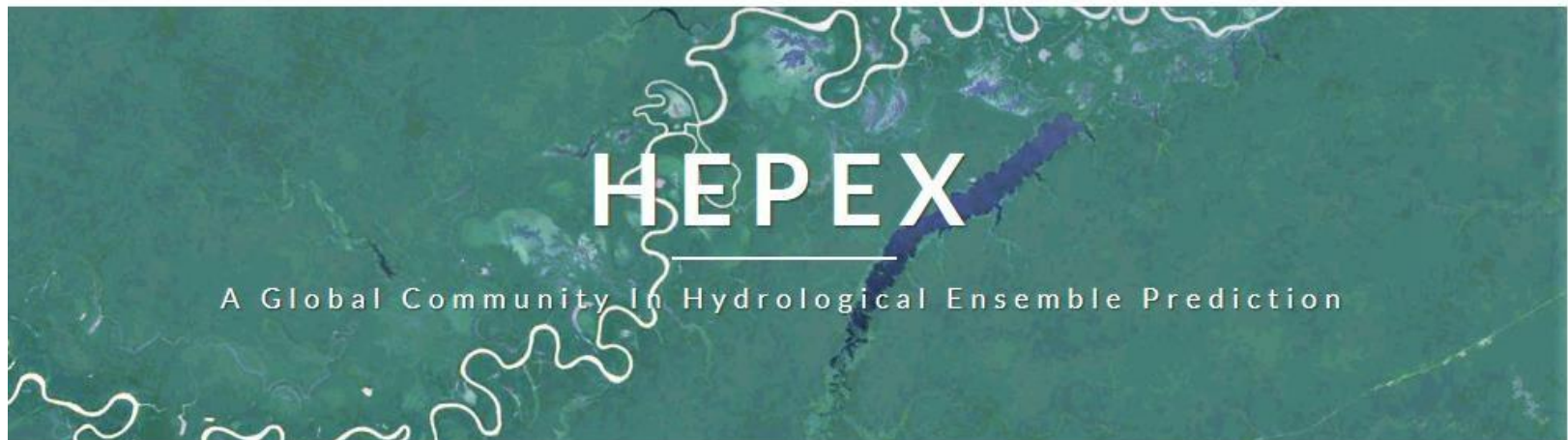
ABOUT HEPEX ▾

JOIN & CONTACT ▾

RESOURCES ▾

WORKSHOPS ▾

2020 WORKSHOP ▾



## FORECASTING ALGAL BLOOMS IN LAKES AND RESERVOIRS

 March 11, 2020  Rebecca Emerton  0 Comment

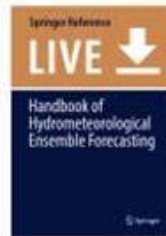
Contributed by: Trevor Page, Paul Smith, Keith Beven, Ian Jones, J Alex



# Education/Communication



Springer Link



## Handbook of Hydrometeorological Ensemble Forecasting

Editors (view affiliations)

Qingyun Duan, Florian Pappenberger, Andy Wood, Hannah L. Cloke, John C. Schaake

Living reference work

16 8 170 8.3k  
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(\*Photos from Ilias Pechlivanidis, SMHI)

(\*Photo from Marie-Amélie Boucher, U. de Sherbrooke)

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# Enhancing our connections

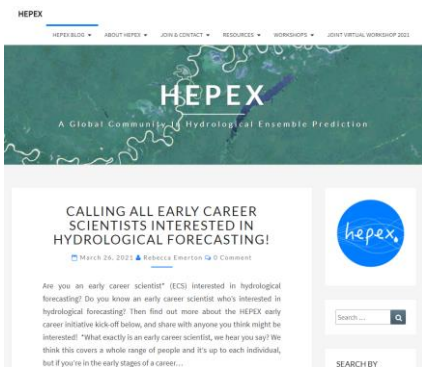


- **Seamless forecasting across space and lead times:** an old idea or the new order?
- **Global, continental, regional and local systems:** where do they meet?
- **Making global forecasts relevant locally, and local approaches relevant globally:** a pipe dream?
- **Communication and visualization:** have we explored all the possibilities? How are ensemble forecasts perceived by different user groups?
- **Forecast evaluation:** do we understand the quality of our forecasts? Are there best practices to measure the value of the forecasts to the users (stakeholders or society)?
- **Private sector:** What is their role in setting up operational forecasting systems at different scales?
- **Link with early career scientists:** have we set the right paradigms in training the new generation of forecasters?



# How to join

- Current co-Chairs:
  - Marie-Amélie Boucher (Univ. of Sherbrooke, Canada)
  - James Bennett (CSIRO, Australia)
  - Ilias Pechlivanidis (SMHI, Sweden)
  - Fredrik Wetterhall (ECMWF, UK)
- Subscribe to the mailing list:
  - Send an email to [hepex+subscribe@googlegroups.com](mailto:hepex+subscribe@googlegroups.com)
- Visit the website: [www.hepex.org](http://www.hepex.org)



# HEPEX 2023 workshop



visitedplaces.com

Workshop's aim is to discuss  
the latest developments in  
hydrological forecasting and  
applications in the water  
management sector

6 oral sessions  
15 posters  
4 invited talks  
>100 participants



**#HEPEX**