EUMETNET 2019-2023

SRNWP-EPS workshop 2021

Workshop on "LAM-EPS verification on extremes and forecasting value chain for High Impact Weather"

26-28 October 2021, BlueJeans video-conference meeting

Second Announcement

In the framework of the **SRNWP-EPS** module of the NWP Cooperation Programme (NWP-C) of EUMETNET, the Workshop entitled "*LAM-EPS verification on extremes and forecasting **value chain** for High Impact Weather*" will be organized in 2021 by videoconference due to pandemic situation.

The Workshop will take place during the last week of **October** 2021 tentatively from the **26th** to **28th** starting at **07:30 UTC** (09:30 CEST) and finishing at **10:30 UTC** (12:30 CEST) with two afternoon sessions devoted to non-European invited speakers or extra-discussions. It will be held through **BlueJeans** video conferencing meetings.

The general aim of the Workshop is to bring together EPS scientists/developers and some forecast's users to discuss the quality and the usefulness of the LAM-EPS systems in forecasting high-impact weather, with the purpose to find out the strong and weak points and how it could be improved. In particular, it is expected to realise together a **value chain** activity, focusing on convective high impact weather and extremes.

The Value Chain project is a 4-year flagship study project of the World Weather Research Programme (WWRP) High Impact Weather (HIWeather) project and the Societal and Economic Research Applications (SERA) Working Group. It focuses on warning chains for a selected set of hazards identified in the HIWeather Implementation Plan, among which urban flood, localised extreme wind, disruptive winter weather, and urban heat waves (http://hiweather.net/Uploads/keditor/file/20210805/20210805105814_14886.pdf).

The Workshop will be structured around presentations of invited speakers and participants, short oral poster-type/few slides presentations, value chain practise and discussion sessions.

Since the use of ensemble forecasts for the prediction of high-impact weather is a common topic between the Value Chain Project and the SRNWP-EPS Project, a session about this topic will be organised during the Workshop. An invited talk by B. Ebert (project coordinator) will open the session. The participants are invited to bring material (slides, reports, newspaper articles) about events of high-impact weather affecting their countries/regions, to share examples of forecasts and warnings and discuss the support provided by the ensembles. The possibility to provide an European contribution to the Value Chain Project will also be discussed.

Additionally next SRNWP-EPS issues will be addressed:

- Update advances on the Application Tasks of the project: tools for the calibration of LAM ensembles for forecasting extremes (#req. EPS_1), post-processing products using specifically outputs from LAM-EPS devoted to high impact weather forecasting (#req. EPS_2) and the additional Application task to develop methodologies for defining an Extreme Forecast Index (EFI) and Shift of Tales Index (SOT) for LAM-EPS (#req. EPS_8).
- From the research point of view, present and review the established "EUMETNET SRNWP-EPS Convection permitting LAM-EPS database". Discuss testing experiments coordinated between the participants and

activities relying on the database and based on the "***Research Task Plan***" document in order to improve the representation of model uncertainties relevant for forecasting high-impact weather phenomena.

Participants are invited to submit abstracts, mainly on the following topics:

- LAM-EPS value chain experiences.
- Post-processed probabilistic prediction of high-impact weather (e.g. gusts, icing, fog, severe convection, wind storms, lightning, turbulence) and extremes.
- Ensemble approaches to deal with model uncertainties: methods, results of experiments and open issues
- Plans for ensemble forecasting, including development of new post-processing and/or calibration approaches, new products, new verification methods, and so on.

Registration

Register by sending an email to Scientific Coordinators Alfons Callado (acalladop@aemet.es), Francesca Marcucci (francesca.marcucci@aeronautica.difesa.it) and Chiara Marsigli (Chiara.Marsigli@dwd.de).

For those who want to present their work, a short abstract [including title, authors name(s) and affiliation plus a preference for oral or short oral poster presentation] should be submitted by e-mail to the three previous Scientific Coordinators.

Deadline for submission of abstracts is extended until October 18th, 2021.

Confirmed Invited speakers

- Value Chain
  - **Dr. Beth Ebert**, Bureau of Meteorology / *Australia* and in charge of WMO High Impact Weather Project (HIWeather); ***Using Value Chain Approaches to Evaluate End-to-End Warning Systems***
- Calibration on extremes
  - **Dr. Sebastian Lerch**, Karlsruhe Institute of Technology, *Germany*; ***AI methods for post-processing ensemble predictions***
  - **Dr. Maxime Taillardat**, Météo-France, *France*; ***Extreme events and ensemble post-processing: from forecast to evaluation***
- Post-processed Forecasting tools
  - **Dr. Harald Richter,**, Bureau of Meteorology / *Australia*; ***New convective guidance at the Australian Bureau of Meteorology***
  - **PhD Aniel Jardines**, University Carlos III in Madrid, *Spain*; ***Applying LSTM to High Resolution Numerical Weather Products for Convection Prediction***
- Extreme Forecast Index and Shift Of Tails
  - **Mr. Ivan Tsonevsky**, *ECMWF*: ***The Extreme Forecast Index and Shift Of Tails at ECMWF***

Program

The project Scientific Coordinators Alfons Callado-Pallarès (AEMET), Francesca Marcucci (COMET) and Chiara Marsigli (DWD) will prepare the program.

The detailed program will be compiled following the number of presentations and posters. It will be left enough time for discussions: the join projects' ones and the specific working groups' ones for each project.

Video-conference

The Workshop will be hold through daily **BlueJeans** video conferencing meetings, which will could be joined either from a web browser to **199.48.152.152** or **bjn.vc** web sides or from a computer pre-installed BlueJeans software.

The scheduled **meetings IDs** / **participant passcodes** and link sessions sessions starting at **09:30 CEST** (**07:30 UTC**) and finishing around **12:30 CEST** (**10:30 UTC**) in the morning and starting at **15:30 CEST** (**13:30 UTC**) and finishing around 17:00 CEST (**15:00 UTC**) in the afternoon are:

- 26th: Morning: **736 316 721 / 2982** Afternoon: **553 546 542 / 0555**

  https://bluejeans.com/736316721/2982

  https://bluejeans.com/553546542/0555

- 27th: Morning: **576 254 957 / 0679** Afternoon: **275 654 685 / 7937**

  https://bluejeans.com/576254957/0679

  https://bluejeans.com/275654685/7937

- 28th: Morning: **729 366 412 / 2658**

  https://bluejeans.com/729366412/2658

The afternoon sessions will be definitively confirmed with the second circular depending on the specific requests or invited speakers and participants.