

## CORDEX-FPS: Convective Phenomena over Europe and the Mediterranean

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The CORDEX-FPS on Convective Phenomena over Europe and the Mediterranean aims to produce and investigate a first-of-its-kind ensemble of convection permitting simulations. There are over 67 individual participants representing 16 modeling groups and 5 non-hydrostatic regional climate models. The third annual meeting was held November 21-22, 2018 in Lisbon. Our hosts were Rita Cardoso and Pedro Soares of the Universidade de Lisboa Faculty of Sciences, Lisbon, Portugal.

2018 was a successful year with the publication of our first community manuscript (Coppola et al., 2018). Invited talks were given at EGU in Vienna (<https://meetingorganizer.copernicus.org/EGU2018/EGU2018-1812.pdf>) and the second GEWEX convection permitting modeling workshop in Boulder, CO (<https://ral.ucar.edu/events/2018/cpcm>). WCRP-CORDEX IPOC also contributed travel support for 4 participants at the CPM workshop. 4 additional presentations were given at the CPM workshop, a talk at the GEWEX Extremes and water at the edge conference and a talk at the Spanish meteorological association conference. One additional paper is in revision. See references for details.

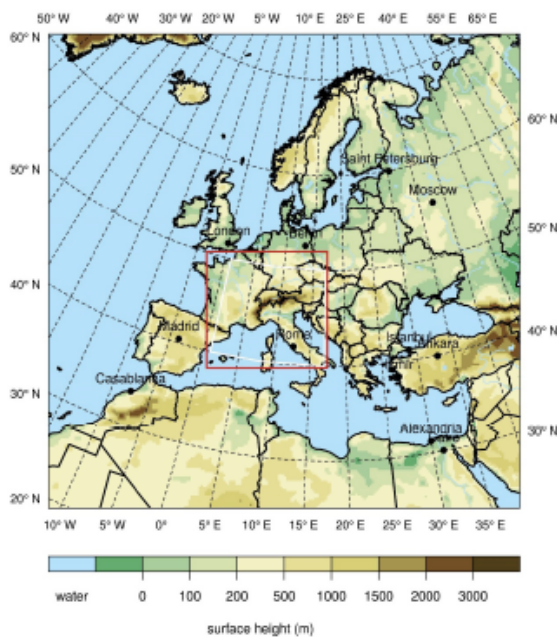


Figure: Illustration of location of FPS convection mandatory domain (red box). The actual region (1E – 17E; 40N – 50N) for final analyses is shown by the white box.

status of simulations is currently freely available to all via google spreadsheets. The aim is to make model configuration as transparent as possible. Likewise the status of the runs should also be readily available.

Simulations:

[https://drive.google.com/open?id=1d8\\_bR7pc\\_2LIVFB9fRbs95tl09sip6k-1wz-FThM5Wc](https://drive.google.com/open?id=1d8_bR7pc_2LIVFB9fRbs95tl09sip6k-1wz-FThM5Wc)

Metadata:

[https://drive.google.com/open?id=1q5SnLtetg6UvNhQRR1\\_iJEldKk4D3NDaP4tWWyH92qc](https://drive.google.com/open?id=1q5SnLtetg6UvNhQRR1_iJEldKk4D3NDaP4tWWyH92qc)

During the 2018 annual meeting an entire day was set aside for scientific presentations and discussions. There were a total of **17** talks on a wide range of topics from statistical emulators to internal variability to scenario assessments. Most impressive was how the investigations have moved beyond analyses of the canonical surface fields to other aspects of the climate system.

Challenges around observational evaluation were yet again a hot topic of discussion. The ICTP team has assembled a number of products. A description of the products and instructions for accessing them will be posted to the wiki. However, due to use restrictions these data cannot be shared outside the FPS consortium.

Documentation of the models metadata and

The discussion has been initiated on how eventually deliver the FPS simulations on the ESGF. The need of adapting the existing CORDEX name convention for the file name or domain to the new needs of the CORDEX-FPS simulations has been identified and discussed. Ole B. Christensen has taken the lead of investigating the issue further and few possibilities have been already suggested.

Lastly it was agreed that a fair use policy should be drafted, circulated and then posted to the project wiki. It will detail the fair use of simulations while project is running. In short, use of contributor simulations/ensembles should include an offer of co-authorship.

### Plans for 2019

- Finish evaluation (Era-Interim, 2000-2009) runs as soon as possible (late spring/early summer)
- Generate a small “mini” ensemble representing the 5 models for historical (1996-2005) and future (2090-2099) time slices by late spring early summer; Not all groups can meet this tight deadline but we aim for at least an ensemble of one full set of simulations from each the RCMs represented in the FPS.
- Perform analyses and write community papers on the following topics in time for inclusion in the IPCC WG-1 (deadline 31.12.2019): 1) One on the evaluation runs (Lead Author/Institute: Nikolina Ban/ETH), 2) One on changing precipitation characteristics in the scenario runs (Lead Author/Institute: Stefan Sobolowski/BCCR), 3) One more focused on hazards and extremes (Lead Author/Institute: Erika/ICTP), 4) One on statistical emulators (t.b.d).
- All other groups aim to finish the evaluation runs and scenario runs by year’s end

### References

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