

Meeting minutes

The meeting starts at 14:00 and ends at 19:00 of Thursday 3 April 2025
at 9:00 and ends at 13:00 of Friday 4 April 2025.

Location: Sala Seminari 1st floor, ISAC - CNR, Via Piero Gobetti 101, Bologna.

Participants

Alberto Viglione (PoliTo)
Anna Basso
Luca Lombardo
Enrico Arnone (UniTo)
Vikas Kumar
Giovanni Saglietto
Susanna Corti (CNRBo)
Ignazio Giuntoli
Ilaria Tessari

Agenda

Thursday 3 April 2025

- 1) Short introduction; (5 min)
- 2) PoliTo presentation and discussion; (45 min)
- 3) UniTo presentation and discussion; (1.30 h)
- 4) CNR presentation and discussion; (1.15 h)
- 5) UniTo presentation and discussion; (1.15 h)

Friday 4 April 2025

- 6) Joint discussions; (4 h)
- 7) AOB. (N min)

Notes

- Point 2: Discussion about a common way to identify the climate and flood extremes: the different groups implemented their analysis with dissimilar thresholds for the identification of extreme events. Once verified that these methods converge (using a case study identified by PoliTo), a method to homogenize the different procedures has been discussed in order to apply the same definition of extreme event both to climate and hydrological components.
- Point 3: UniTo tried to separate the components of convective and large scale precipitation to see if the correlation between discharge and precipitation improves during summer. They also tried to relate the convective component of the precipitation with the Weather Regimes used to classify the atmospheric variability.
- Point 3: UniTo found that it's possible to identify precipitation related to flood events also using low resolution data. This leads the possibility to apply our analysis to the future projections using climate models.

- Point 4: CNR shows the connection between extreme precipitation and Weather Regimes. In a study case highlighted by PoliTo, a transition between regimes is observed: it comes out that it can be possible to try to associate the track of cyclones occurring when EPEs happen and associate them with regimes. The track of cyclones is possible with a specific tool implemented by the research group of Giuseppe Zappa (ISAC CNR Bologna).
- Point 5: UniTo underline that it's fundamental to decide which climate models we can use to force the flood model in order to observe future scenarios, the questions are: I) is a bias correction needed with some models? II) a bias correction can be done but maintaining a consistency with the spatial pattern? III) is needed also bias correction for temperature?
- Point 6: the key point is try to do a chain of models with the climate and flood models: are we able to construct a storyline?
- Point 6: during the joint analysis the different teams tried to define the possible structure of the paper that the team set out to publish at the end of the project.

Anna Basso and Ilaria Tessari