

Round table

**High resolution modeling
platforms for intense events**

HYMEX

ATMOSPHERIC MODELING

A large number of models have been proposed to be used with the aim to meet the relevant scientific objectives of HYMEX:

Arome, Moloch, WRF, MM5, RAMS, Bolam, Meso-NH, Cosmo, Eta, Skiron, ...

Although there is a number of proposals for modeling activity within HYMEX, there is a need to better coordinate and further define the scientific objectives on processes understanding.

Among the scopes is to work on:

- DATA ASSIMILATION

- Assimilation of special observations collected during the HYMEX SOPs (3-D VAR, LAPS,...).
- Theoretical studies on data assimilation and predictability.
- ...

- ENSEMBLE PREDICTION

- efforts on regional scale towards super-ensemble
- different approaches on the creation of perturbed initial conditions for high resolution ensemble forecasting..
- ...

COUPLING OF MODELS

- HYDROLOGICAL MODELS

- Address the cascade of uncertainties from meteo to hydrological models, by using atmospheric model ensembles, and by using a variety of hydro-models.
- Focus on the processes understanding of physically based models and apply them at larger than the "basin" scale, at scales of $\sim 10 - 20000 \text{ km}^2$.
- challenge of fully coupled meteo-hydro models ...

- OCEAN MODELS

- challenge of fully coupled atmospheric-ocean models, there are already efforts on that
- ...

CONCLUSIONS

- There is a large and powerful network of scientists / institutes that aim at contributing to the high resolution modeling activities in the frame of HYMEX

BUT

- Funding resources are necessary in order to proceed to the necessary commitments

SO

- An idea is that the HYMEX Steering Committee or an appointed Task Force, organize a meeting with the EU Officers in order to promote the HYMEX objectives with the aim to assure relevant calls in the near-future.