FPS Convection Experiment Protocol – Preliminary (05.12.2016)

Mandatory Domain

- See attached description of mandatory domain and coordinates for model configuration for both rotated and non-rotated RCMs
- Inner "common" domain for analysis: **1°-17°E, 40°-50°N**

Settings

- No nudging
- Common model systems coordinate their set-ups (e.g., common grid, sponge layer, vertical levels, soil moisture spin-up, etc.)
- Shallow convection turned on (suggested, not mandatory)
- Soil moisture: each model system use its own spin up procedure
- Lake model turned on (if available)
- Vertical levels: up to modeling teams but 35-50+ recommended
- Common land-sea mask, topography
- LBC update frequency up to model groups
- SST from ERA-interim (some groups may want to do sensitivity tests with higher resolution)
- Model top: up to modeling teams, the higher the better (~20hPa)
- Nesting strategy: Directly down from ERA-interim or from the 0.11 Euro/Med/Coupled-Med CORDEX domains

Data Sharing/Output

- Standard CORDEX format
- Variables: start with "CORE" (see attached spreadsheet) and add hourly precipitation, temperature and …
- All data on a common 3km lat-lon grid for analysis

Time periods/Driving Reanalyses or GCMs

- ERA-interim evaluation run ***2000-2014*** (if possible), minimum 10 years
- Aim for groups to have 1yr of evaluation run done by June 2017
- Tentative CMIP5 simulation time slices:
  - HIST: ***1996-2005***
  - RCP85: ***2041-2050***
  - RCP85: ***2090-2099***

Participating RCMs/Institutions/POCs

- See xcel spreadsheet "FPS_EuroMedConvection_Simulations"

Still to be determined

- Urban settings, if available, be turned on?
- Additional output variables

* Modeling teams already running, or desiring to run, at < 3km are welcome to do so.