

# EURO-CORDEX regional climate simulations: Hindcast 1990-2008

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We present results from the hindcast simulation 1990-2008 performed with the WRF3.3.1 model within the framework of the EURO-CORDEX initiative. Model results are compared with the E-OBS observational dataset for two key climatic variables, 2m temperature and precipitation. First results are discussed thoroughly and compared with higher resolution (10 Km) regional climatic simulations performed over south-east Europe with the climate model RegCM3.

The WRF model has been forced by the ERA-INTERIM reanalysis (Simmons et al., 2006). Table 1 presents the setup used for the WRF EURO-CORDEX simulation. Figure 1 shows the mean summer (JJA) 2m temperature averaged over the hindcast period (1990-2008). The spatial variations are captured relatively well as compared to the observational dataset (Fig. 2). There seems to be some negative bias, especially over northern Europe during the summer and winter months.

Table 1. WRF3.3.1 set up for the COREX EUR-0.44 simulations

Phs/Dyn Options	Scheme
Microphysics	WRF-single moment 6-class
Radiation (SW/LW)	CAM
Surface Layer	MM5-Similarity
Land surface	NOAH LSM
Planetary BL	Yonsei University
Cumulus paramet	Kain-Fritsch

ERA-INT/WRF T(2m) 1990-2008 JJA

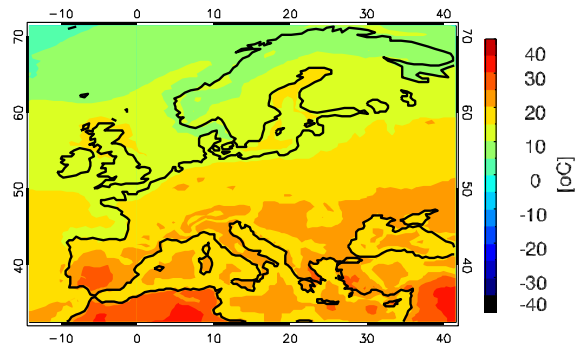


Figure 1. ERA-INT/WRF simulated mean summer (JJA) 2m temperatures for the hindcast period 1990-2008

E-OBS 0.44\_deg TG 1990-2008 JJA

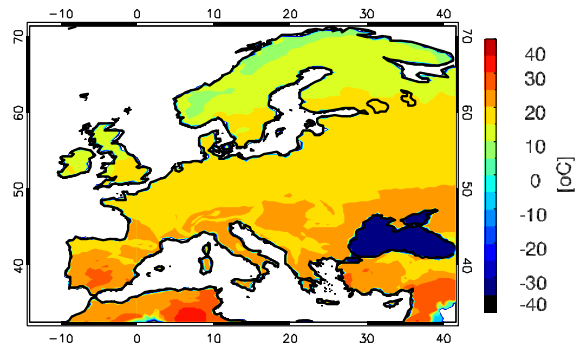


Figure 2. Mean summer (JJA) E-OBS temperature (TG) for the hindcast period 1990-2008

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## References

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