



CECILIA regional climate simulations for present climate – validation and inter-comparison

P. Skalák (1), M. Déqué (2), A. Farda (1), M. Belda (3), G. Csima (4), R. Pongratz (5), M. Caian (6), and V. Spiridonov (7)

(1) Czech Hydrometeorological Institute, Department of Climatology, Na Šabatce 17, Prague, Czech Republic (skalak@chmi.cz, +420 244032255), (2) Météo-France, CNRM/GMGEC/EAC, Toulouse, France, (3) Charles University in Prague, Faculty of Mathematics and Physics, Prague, Czech Republic, (4) Hungarian Meteorological Service, Budapest, Hungary, (5) Eötvös Loránd University, Budapest, Hungary, (6) National Meteorological Administration, Bucharest, Romania, (7) National Institute of Meteorology and Hydrology, Sofia, Bulgaria

CECILIA project's present climate simulations performed by a set of different regional climate models (RCMs) driven by the ERA-40 re-analyses are investigated. All RCMs were run in very high spatial resolution of 10 km, however, over different integration domains covering parts of Central and Eastern Europe (CEE). To assess the RCMs' performance, seasonal characteristics of 2-meter temperature and precipitation are compared with the observed data from the E-OBS dataset. The comparison is done over territories of the selected CEE countries (Bulgaria, Czech Republic, Hungary, Slovakia and Romania) in the period 1961-1990, for each country individually. The statistics of seasonal characteristics aggregated over either space or time are derived to assess both temporal and spatial qualities of RCM simulations. Furthermore, the same statistics are derived from several RCM simulations of coarser 25 km spatial resolution coming from the ENSEMBLES project. These are then compared to the CECILIA simulations to identify a possible added value of high resolution brought by the CECILIA experiments.