



# 1 Role of land-atmosphere coupling for climate-change signal in Europe

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We analyze the hydrological cycle characteristics and climate variability of present (1960-1989) and future (2070-2099) climate simulations for the European continent. The simulations are performed with the CHRM regional climate model, using boundary conditions from the HadCM3 AGCM, based on the set-up of the recent EU-project PRUDENCE. The main focus of the present analysis is the quantification of the role of land-atmosphere coupling for future summer climate in Europe. This issue is investigated using sensitivity experiments uncoupling the land surface from the atmosphere.