



Future changes of precipitation and cyclone activity in the Mediterranean region inferred from a regional climate model

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This study is based on a set of simulations carried out at ICTP in Trieste with a regional climate model (called RegCM) in the Mediterranean region. The A2 and B2 scenarios for the period 2070-2100 are described and compared with a CTR simulation based on the 1960-1990 green house gas concentration. The seasonal monthly precipitation and synoptic variability fields are considered simultaneously and their link is investigated. Results show a small and statistically significant precipitation reduction, which in summer is larger and more widespread than in other seasons. Only for winter in the northern part a precipitation increase is observed. The precipitation changes in the north-western part is linked to the change of the storm track over central-western Europe. The rest of the region, especially in spring, summer and winter is affected more directly by the intensity of the storm track in the Mediterranean region itself.