

# **Cyclone activity and precipitation in the Mediterranean region: analysis of regional climate scenario simulations**

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This study is based on a set of simulations carried out at ICTP in Trieste with a regional climate model in the Mediterranean region. The A2 and B2 scenario for the period 2070-2100 are described and compared with a CTR simulation based on the 1960-1990 green house gas concentration. The monthly precipitation and synoptic variability fields are considered simultaneously and their link is investigated. The information provided by these fields is integrated by the results of a cyclone trajectory identification algorithm. Results show the consistent reduction of the summer precipitation and of cyclone activity in the A2 and B2 scenario over the north-western and central Mediterranean. The opposite situation takes place in winter, with higher synoptic activity in the west and precipitation in the Northern Mediterranean.