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Future climate scenarios: cyclones in the Mediterranean region

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This study analyses cyclones in future scenario simulations carried out with the RegCM regional climate model at ICTP (Trieste, Italy) including the whole Mediterranean region. The simulations considers the A2 and B2 scenario beside a control (1960-1990) simulation. The analysis has been carried out both using a cyclone trajectory identification algorithm and computing the SLP standard deviation of the band-pass filtered Sea Level Pressure fields. Results show a climate change signal increasing with the emission level, i.e. large in the A2 than in the B2 scenario. With respect to the control simulation, the A2 scenario shows a significant reduction the of synoptic variability in spring and autumn, a large reduction of the overall number of cyclones in December and suggests an increase of intense cyclones in autumn and winter.