



Present and future climate simulation of Mediterranean cyclones with a high resolution AOGCM

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Preliminary results are presented of a study aiming at producing a climatology of Mediterranean cyclones making use of a global AOGCM coupled with an interactive high-resolution model of the Mediterranean Sea. Cyclones are analyzed with both the lagrangian and the eulerian approaches, applied to three different simulations: a control one (present climate conditions) and two IPCC scenarios (A1B and A2). Both the North Atlantic stormtrack and cyclone track and genesis density statistics from the control dataset are analyzed compared to ERA40 reanalysis. Cyclones are grouped according to their genesis location and the corresponding lysis regions are identified. Particular attention is devoted to the effects of sea-surface fields (temperature gradients and heat fluxes). The wet season (October–March) is examined in relation to the decrease in the intensity of cyclogenesis events in the region and trends are investigated.