

P22 The influence of WRF parameterisation schemes on high resolution simulations over Central Greece

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In the present study an attempt is made to estimate the ability of the WRF model (WRF-ARW ver3.5.1) to reproduce selected days with high convective activity during the year 2010. WRF is integrated in three domains covering Europe, Eastern Mediterranean and Central-Northern Greece using telescoping nesting with grid spacing of 15km, 5km and 1km, respectively. By alternating microphysics (Ferrier, WSM6, Goddard), boundary layer (YSU, MYJ) and cumulus convection (Kain-Fritsch, BMJ) schemes, a set of twelve model setups is obtained. A quantitative method is used to assess gridded simulated fields in comparison with observations, in order to select the best setup to be used for runs supporting a rainfall enhancement program. The spatiotemporal characteristics are captured in higher detail, using parameterisations with more complex physics, resulting to larger runtimes and problems in model stability.

Acknowledgements: This research is co-financed by the European Union (European Regional Development Fund) and Greek national funds, through the action "COOPERATION 2011: Partnerships of Production and Research Institutions in Focused Research and Technology Sectors" (contract number 11SYN_8_1088 - DAPHNE) in the framework of the operational programme "Competitiveness and Entrepreneurship" and Regions in Transition (OPC II, NSRF 2007-2013).