EMS Annual Meeting Abstracts
Vol. 11, EMS2014-628, 2014
14th EMS / 10th ECAC

The Effect of the Parameterizations of Convection on Rainfall Events in Poland

Bogumil Jakubiak and Richard Hodur
University of Warsaw, ICM, Warsaw, Poland (jakubiak@icm.edu.pl, +48 228749115)

n this study, we evaluate a number of different microphysical, boundary layer, and land surface parameterizations applied to the forecast of significant rainfall events over Poland. This study is performed using the Coupled Ocean/Atmosphere Mesoscale Prediction System (COAMPS) and a number of observational- and satellite-based verification techniques. Several significant precipitation events occurred over Poland during the spring and summer months of 2010, and these events are used for sensitivity tests for various parameterizations. These cases are dominated by late spring/summer frontal/convection conditions. The results indicate that while some precipitation events are simulated quite well, others pose problems for all parameterizations. Also, within any one case, a large spread in the forecasts can exist when using different parameterizations. This talk will include brief descriptions of the baseline version of COAMPS and the precipitation events that make up this study, and the results and validation of the tests that have been performed; along with suggestions for further work that is required in this area.