



The importance of boundary data resolution on regional climate modelling for extreme weather events

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The data used to drive regional climate models (RCMs) is often supplied by general circulation models or global reanalyses. The horizontal resolution and number of vertical levels of the models which produce this driving data varies for different models.

In order to investigate the importance of changes in resolution of this boundary data on the output from a RCM, a series of experiments has been run. Dates of recent extreme weather events in Ireland were selected, and simulations run using the RCA3 climate model. ECMWF operational data filtered at different resolutions, and with different numbers of vertical levels, were used to drive the simulations. All simulations were performed at a RCM resolution of 0.12 degrees. The output was analysed to investigate the effect of the different resolutions of driving data on the performance of the RCM for extreme events.