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Forecasting the weather
- ensemble techniques
in probabilistic weather prediction

Adapting the MOGREPS first-guess severe weather warning system to changing requirements from the public weather service

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The Regional component of the Met Office ensemble prediction system has been used to produce an area-based probabilistic first-guess warning system for severe and extreme weather (MOGREPS-W). The system was designed to assist the National Severe Weather Warnings Service (NSWWS), which has recently undergone significant changes. At the end of March 2011 NSWWS warnings were changed to better represent the impact of severe weather on society. Warnings to the public are now presented by shape areas on a map rather than just by county region. Three warning colours (yellow, orange or red) are issued based on the likelihood of a particular event occurring and its impact if it does occur. These changes will be brought into MOGREPS-W by having low, medium and high impact thresholds for each parameter (similar to the severe and extreme thresholds used in the current system). These impact thresholds will also vary according to county. MOGREPS grid-point probabilities will provide a guide to drawing areas affected on a map, while county based analysis will guide which authorities should receive the warning. This presentation will outline the changes to the MOGREPS-W system and provide a few case studies.