

Ensembles and probabilities in the 1980s: Pioneering the use of dynamical ensembles in real-time monthly predictions

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During the 1980s the Met Office produced experimental monthly forecasts, provided to users on a regular basis. While medium-range dynamical predictions were used for days 1-5 ahead, forecasts for days 6-15 and 16-30 were based on statistical methods driven by observations. During this period, Tim and I developed a prototype system for dynamical monthly forecasts that could be run in real-time. A shared understanding of the uncertainties inherent in monthly prediction informed both the statistical forecasts (which were presented in a probabilistic format) and the dynamical predictions, which were presented as an ensemble and became an additional contribution to the Met Office forecasts. In addition to describing these initiatives, I will give a few examples of how Tim's support for the use of ensembles and probabilities helped to inspire their adoption in later work on prediction systems for longer time scales, including the UK's national climate change scenarios.

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