

Visualisation of deterministic and ensemble weather predictions in operations and research at ECMWF - state of the art and challenges

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Abstract:

The European Centre for Medium-Range Weather Forecasts (ECMWF) is numerical weather prediction (NWP) centre which runs various global forecast models in single high resolution or lower resolution ensemble configurations. Even though the focus is on the numerical computations of these forecasts, ECMWF has from its early days used visualisation to support and drive science and innovation in its development of the models. The quality of observation reaching the model is crucial to its success. Visualisation is used to identify any abnormalities in observations and to monitor changes in quality. Increasingly, users of ECMWF forecasts also use visual representations of the forecasts to explore and apply them to their daily work of decision making.

The presentation will give an overview of how visualisation is used at ECMWF and especially how ensemble forecasts are used to develop more useful visual products for forecasters.