

Recent developments and plans for NWP at the Met Office

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The Met Office Unified Modelling system is designed for seamless development of applications from global climate and weather forecasting through convective permitting limited area models to very high resolution for local (city-scale) and high impact events. It is also used for global and regional ensemble prediction systems. The talk will give an overview of the main NWP systems and applications.

A review of recent upgrades of the operational configurations and their impact will be presented as well as plans for future upgrades. A major upgrade was implemented in July 2017 which amongst other improvements increased the global forecast model resolution to 10km (20km ensembles); hourly 4D variational data assimilation was introduced to the UK regional model which has improved the nowcasting performance. Developments towards exascale computing will be briefly described.