Environmental Forecasting at NIWA: A Progress Report

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The New Zealand Limited Area Model (NZLAM) is an operational implementation of the Met Office Unified ModelTM (i.e. OPS, VAR (FGAT7), UM, SCS) on a 12 km resolution domain using a 6 hour assimilation cycle. NZLAM predictions are also being used to forecast weather impacts, including river flood. In the context of New Zealand’s complex and steep topography and short rise time catchments, flood forecast accuracy is very sensitive to timing and magnitude errors in quantitative precipitation forecasts (QPF), which in turn are sensitive to the accuracy of the analysis and (NWP) model resolution. The poster outlines the operational NWP system, information delivery system and indicative verification statistics, and reports on data assimilation and model resolution experiments carried out to better understand forecast accuracy constraints.
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