The value of categorical evaluation in assessing operational air quality forecasts

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The verification of an air quality forecast against near-real-time observations forms an important part of the forecast system and is a powerful tool for assessing model performance and revealing model limitations. This presentation will give an overview of the UK Met Office air quality forecasting and verification system. The forecast system comprises the online forecast model AQUM, a bias correction post-processing system and a verification system. The latter produces a wide range of comparisons between forecast and measured quantities, giving diagnostic metrics and summary statistics. These are used by forecasters to inform briefings and written forecasts during episodes of elevated pollution. The particular value of categorical verification metrics in interpreting and assessing air quality forecast performance will be stressed.