

SESSION: (B5) Hindcast and forecast quality assessment

(B5-01)

Recent Developments in Forecast Quality Assessment

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This talk gives a general overview of some recent developments in forecast quality assessment. First, I discuss the problem of deciding whether one forecast is superior to another, which is a basic question in multi-model forecasting and in model development. I will show that standard statistical tests based on differences in correlation (or mean square error) do not give correct results when the skill measures are computed from data over a common period or with a common set of observations. I then discuss several other tests that give correct results, including a relatively new test called the random walk test. In probabilistic forecast verification, I discuss the importance of proper scores and how non-local scores can lead to counter-intuitive results. I also show how proper scores can be subjected to rigorous hypothesis tests. Finally, I discuss multivariate techniques for assessing forecast fields.