



Verification of seasonal-to-decadal ensemble forecasts

Stefan Siegert

United Kingdom (s.siegert@exeter.ac.uk)

Seasonal-to-decadal ensemble forecasts undergo constant and rapid development in climate centres around the world. Forecast models are frequently improved by increasing the resolution, including new mechanisms, tuning parameters or simply fixing bugs in the code. The question of whether a new model version has actually improved compared to the old version can be answered by verification of a hindcast dataset where the two model versions are used to predict historical observations. I am going to talk about how ensemble quality and ensemble improvements can be defined and quantified. Current practice of statistical testing to answer the big question 'Has the model improved?' will be reviewed. The power of such tests is shown to be low and strategies are suggested to increase the power.