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Skillful Predictions of the winter North Atlantic Oscillation

A. Arribas, A. Brookshaw, C. Maclachlan, D. Peterson, A. Williams, M. Gordon, A. Scaife, N. Dunstone, and M. Martin

Met Office, Exeter, UK (alberto.arribas@metoffice.gov.uk)

Previous long range forecast experiments have concluded that the North Atlantic Oscillation, the dominant mode of winter variability over Europe and North America, is unpredictable at seasonal lead times.

However, by using the new Met Office long-range prediction system, we have been able to demonstrate that the North Atlantic Oscillation in winter is in fact highly predictable months ahead.

We identify the major sources of predictability and demonstrate unprecedented skill in winter forecasts of European near surface temperature, wind speed and storminess; all of which have high value for planning and adaptation to climate variability.