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Title: Flow dependent verification of the ECMWF extended range ensemble forecasts
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Abstract:
 The skill of numerical weather predictions is flow-dependent. Identifying the configurations that lead to a more or less accurate forecast and quantifying skill variability is relevant for forecast interpretation and model development. The present analysis uses the concept of weather regimes to classify which flow configuration leads to a more/less skilful forecasts. The focus is on the Euro-Atlantic sector during the extended winter period when the atmospheric regime structure is most pronounced. Verification results show that in the late medium range (days 10 to 15), forecasts initiated in the negative phase of North Atlantic Oscillation (NAO) are the most skilful, while those initiated during a blocking regime are generally less skilful.^M
The predictability of four Euro-Atlantic weather regimes is also assessed for the monthly time-scale. We use the Bries skill score to measure the ability for the ensemble to predict the correct regime considering each 7-day period of the monthly forecast. Results show that there is substantial skill for the first two periods, while overall skill remains positive up to day 15-21.^M
By contrast, persistence forecasts (assuming for example that the second week of the month will fall in the same regime as the first week) have no skill even for the first part of the month.^M

End