



Northern winter weather regimes as represented by the ECMWF seasonal forecast

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The European Centre for Medium-Range Weather Forecast (ECMWF) issues seasonal forecasts since 2001. The ECMWF Seasonal forecast ability to reproduce weather regimes over the Northern Hemisphere is analyzed. The reference weather patterns are determined using the ECMWF re-analysis (ERA40) by means of a non-hierarchical cluster analysis. Although weather regimes are generally referred to mid-tropospheric flow, a corresponding mean behaviour of precipitation or surface temperature can be associated to them. By exploiting the statistical relation between large-scale dynamical patterns and weather parameters, circulation regimes could be used as predictors of local weather conditions. In this talk the seasonal forecast skill in this respect will be discussed.