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# Interactive web app to explore space-time variability in predictive skill of seasonal forecasts

Kathrin Wehrli (1,2), Christoph Spirig (1), Jonas Bhend (1), and Mark Liniger (1)

(1) MeteoSwiss, Analysis and Forecasting, Zurich, Switzerland (christoph.spirig@meteoswiss.ch), (2) ETH Zurich, Institute for Atmospheric and Climate Science, Zurich, Switzerland

Seasonal forecasts are increasingly being used in decision processes. To maximize the benefit of such forecasts to users, the actual forecast should ideally be accompanied with the information on corresponding forecast quality. Predictability and predictive skill, however, are highly variable in space and time. A comprehensive overview of forecast skill is therefore necessary to allow users to identify when and where skilful forecasts can be used in what way. We have compiled such a comprehensive validation of seasonal forecasts of an operational forecasting system, the ECMWF System 4, and we present this quality information in a public, interactive web application. Monthly and three-monthly averages of forecasts for temperature and precipitation are verified against the ERA-Interim reanalysis, a proxy for observations, using a set of skill metrics describing various aspects of forecast quality. Forecast quality for all forecast initialization dates and forecast lead times is analysed and presented in a way that lets users focus on their target month or season of interest. The interactive web application further allows the user to explore the space-time variability of forecast quality to address questions such as “Where and when can skilful forecast be made?” and “How much worse are forecasts issued further in advance?”.