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Prof. Dr. Oliver Grothe
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Seminargebäude - S12

**Dynamically Combined Density Forecasts From Sets of Point
Forecasters**

Abstract

We consider a real-time forecasting problem where one-period-ahead point forecasts for a certain variable of interest are available at each point in time. Such forecasting problems are relevant in many areas of the economy such as energy and financial markets. Typically, we have a set of different point forecasts provided by professional forecasters. In this paper, we use the information inherent to the time series structure of these point forecasts to construct density forecasts. We further propose to combine these density forecasts by using a time-dynamic copula approach which allows us to exploit the time-varying dependence structure among the different forecasts. Altogether, we obtain a new combined density forecast for each point in time which, besides other desirable properties, is calibrated. We illustrate our method by combining temperature forecasts from two different weather models.