

Forecast Competition

The forecast competition consists of developing a forecasting algorithm in R to predict the future realizations of a time series. The time series used in the competition is simulated according to a secret model stored in the chamber of secrets of Prescott financial. Students have to organize themselves in teams of no more than four members. Each team has to pick a name. The name needs to be shorter than 6 characters, lowercase, contain alphanumeric characters only and not contain any whitespace. The teams have access to a training sample of data and have to develop a prediction algorithm for the future realizations of the series.

1. **Data.** The file `forecast-competition-data.csv` contains the data of the forecast competition. The data is a panel of 50 time series observed of 500 periods. The target variable that each team has to forecast is the variable called `TARGET`. You can use any forecasting method you want. You can predict `TARGET` using both the past realizations of the series itself as well as the past realizations of all other series in the panel.
2. **Prediction.** Create an R script named `team.R` which contains a function called `predictor.team` (where “team” is the name of the team). The function accepts as input `y` which is a $t \times N$ data frame containing all the realizations of the panel up to time t . The function needs to input one scalar forecast for $t + 1$ for the `TARGET` variable (notice that the `TARGET` variable is the first variable in the panel). For example:

```
1 predictor.team <- function(y){  
2  
3     f <- mean(y[,1])  
4  
5     return( f )  
6 }
```
