

SSA-predictor (Simple Signa Accuracy): this is a generalization of the classic mean-square error (MSE) forecast paradigm

- It can replicate classic one-step ahead, multi-step ahead forecasting;
- It can address signal extraction: backcasting, nowcasting, forecasting of 'signals' (cycles, trends, ...)
- It generalizes the classic MSE forecast approach by providing explicit control on smoothness and (to some extent) timeliness issues
 - Smoothness: controlling the rate of false alarms (for example fewer noisy alarms than a selected benchmark)
 - Timeliness: advancement/lead or retardation/lag of filter output relative to a target/benchmark

The R-package contains tutorials on the cited applications. In particular, SSA is applied to Hodrick-Prescott, Baxter-King and Hamilton filters for extracting a cyclical component from data.

- Take control of the zero-crossings of the cycle (less noisy alarms)
- Take control of the lag or retardation of one-sided causal concurrent real-time nowcasts

There should be three folders in this package:

- Data
- R: functions for computing the SSA criterion
- SSA Tutorials: sample R-code on various topics (introductory examples, forecasting, signal extraction with HP, BK and HF filters)

There's also an R-project file called SSA_package

- Open the R-project SSA_package (in Rstudio)
 - Doing so sets the paths to the folders
- Once the project is opened (in Rstudio): load any of the tutorials from the folder 'SSA Tutorials'
 - Depending on the tutorial one has to add additional packages (so called libraries) such as xts, mFilter or packages for loading/updating the data:
 - When all packages/libraries are loaded one can work through the tutorials
 - Start with lowest numbers (of tutorials)

Experience