

Exploring winter predictability in Europe using the ECMWF hindcasts

Research questions

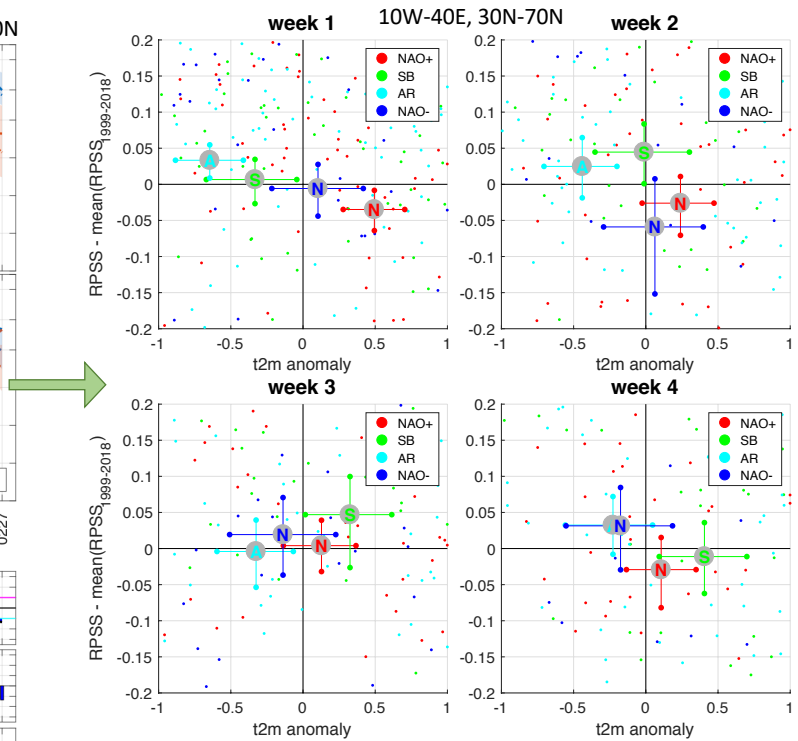
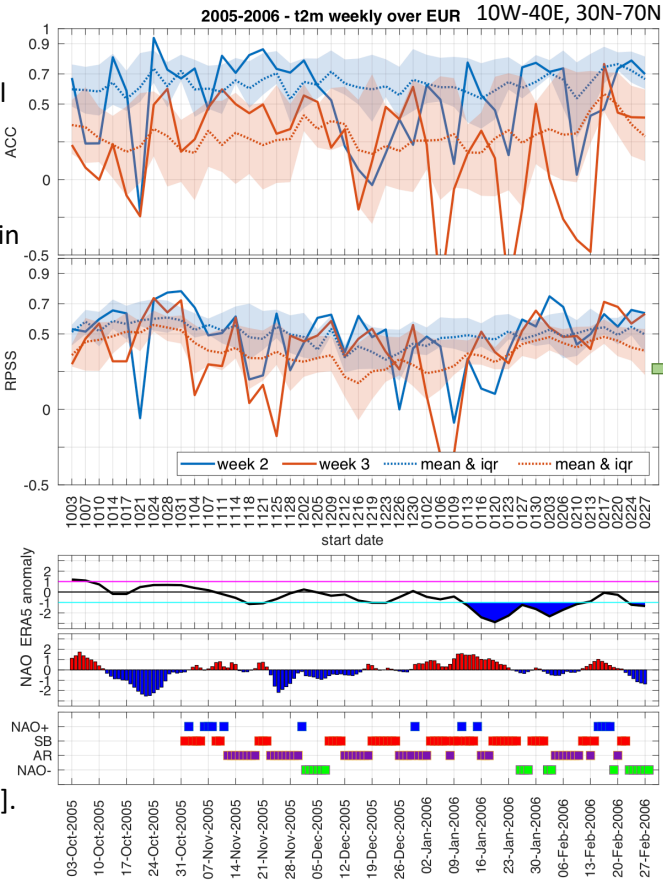
- What drives the skill of the model in detecting temperature anomalies?
- Can we use this information to determine a priori the confidence in the forecast?

Data

t2m, t850 and z500 from ECMWF reforecasts and ERA5 in the NDJF season and 1999-2018 period.
 The reforecasts are:
 35 days lead time
 2 start dates /week

Methods

- Verification via ACC and RPSS.
- Weather Regimes over the Euro-Atlantic domain [NAO+, Sc. Block., Atl. Ridge, NAO-].



Considering WR at the initialization time:

- High variability / For each week, no more than 2 WRs bring significantly different information.
- Sc. Block. in cold anomalies at W1 and W2, in hot anomalies at W3 and W4 – possible indication on low persistence.