Institute of Meteorology and Water Management
National Research Institute

DATA ASSIMILATION activities at IMWM Kraków

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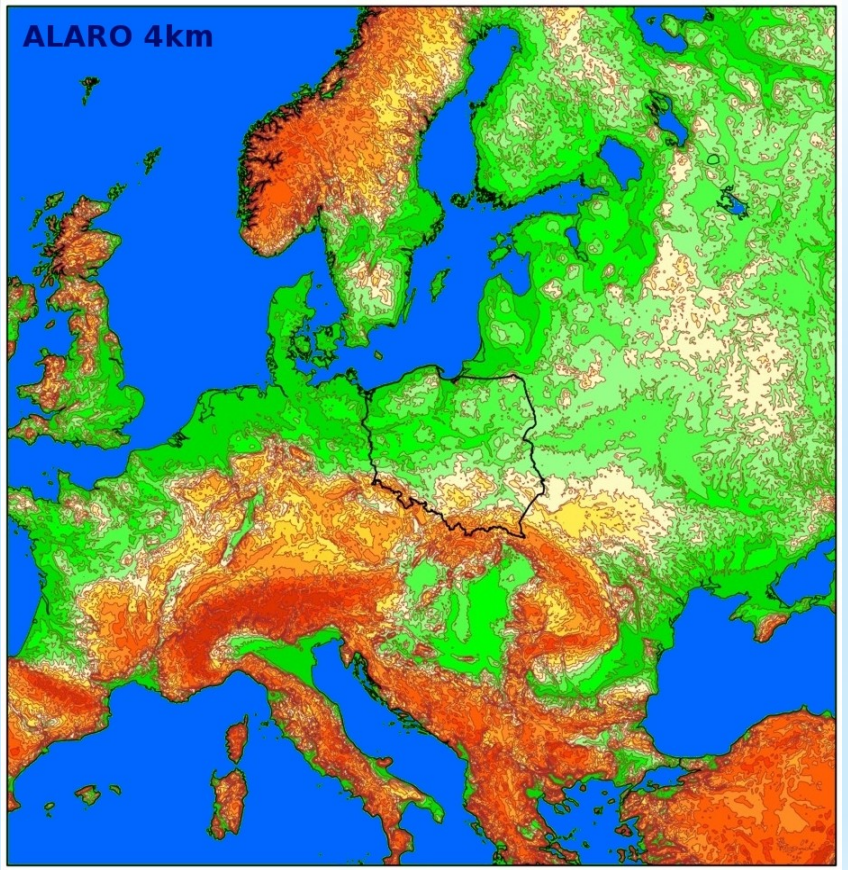
POGODYNKA PL

Model characteristics

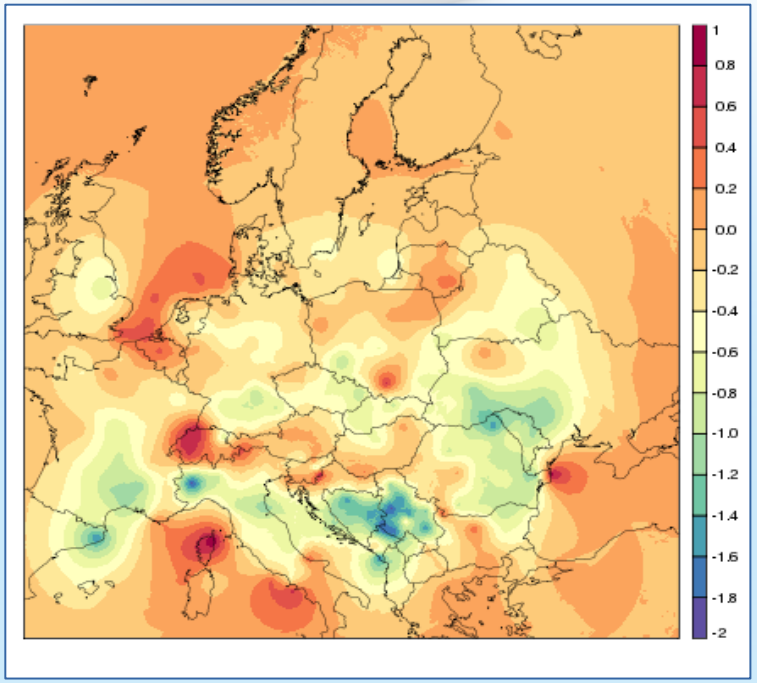
	ALARO-1
horizontal resolution	4.0km
number of grid points	789 x 789
vertical levels	60
operational time step	163.6s / 120s
coupling frequency	3h (ARPEGE LBC)
forecast length	66h (60h at 18UTC)
model version	CY40 T1
HPC	Clusterof HP BL460c_GEN8 servers connected with Infiniband network, OS Scientific Linux 6, Intel Xeon E5-2690 processors – with maximum 1552 cores (97 nodes with 16 cores each), each core RAM 128 GB, disc array – 64 TB.



AROME/IMWM DA

Data

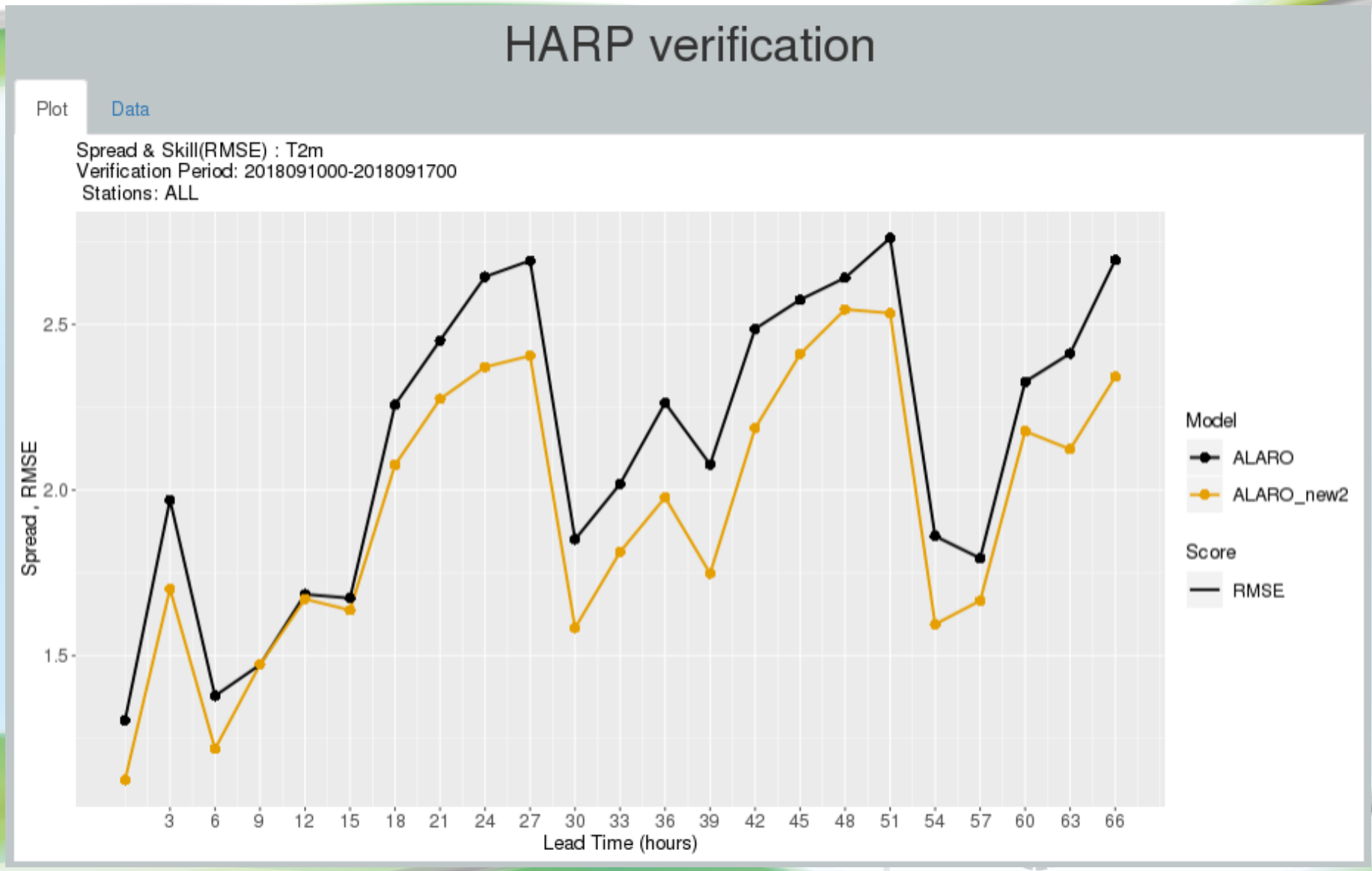
– for now just OPLACE base



Surface

- Data assimilation using CANARI
- Standard setting, no special tuning
- Test once per day run at 00UTC
  - (background our 6h forecast from 18UTC, SST copied from ARPEGE analysis, CANARI and then 66h forecast)

ALARO-1/IMWM DA - verification

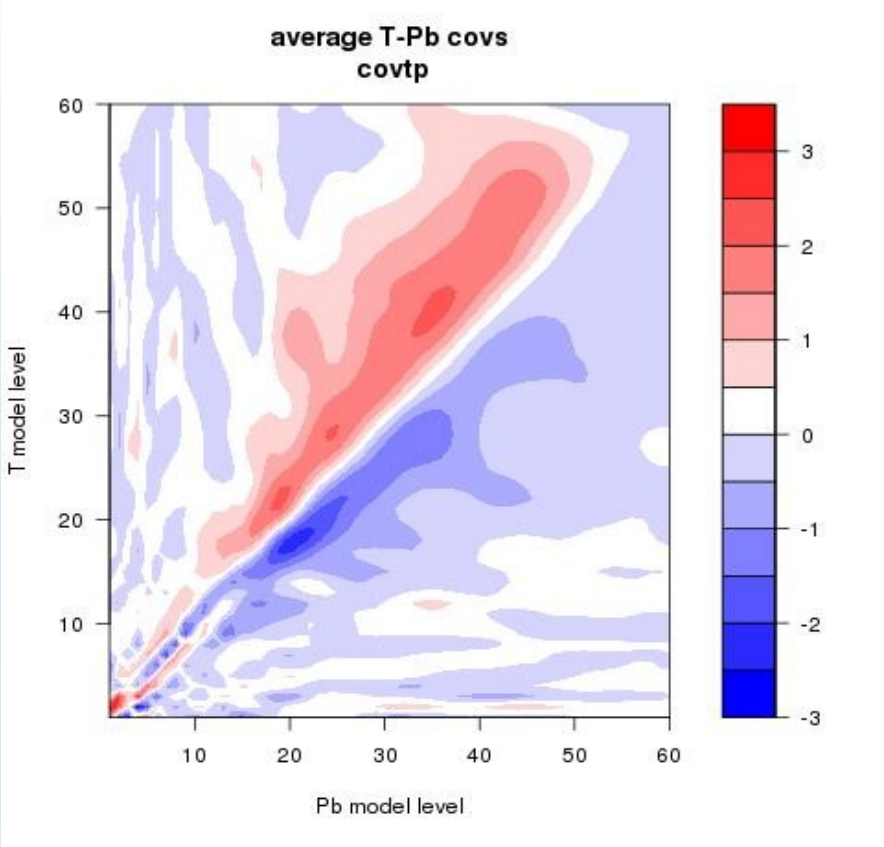


Plans: local data

- Add local data to our CANARI run
  (*obsoul_merge* we have but not yet used)
- Start 4 times per day parallel run with CANARI
- 3D-Var …

Plans: 3D-Var preparation

- First for AROME B matrix was built on the base of our domain AROME ensemble forecast with LBC from AEARP. AROME domain: 799x799grid points, 2.0km horizontal resolution, 60 vertical levels. Ensemble: 6 members, 2 times per day and 30 days of forecast.

- Not finished yet the same wok for ALARO-1.

  Details – ask Bogdan.