

# ALADIN/Belgium

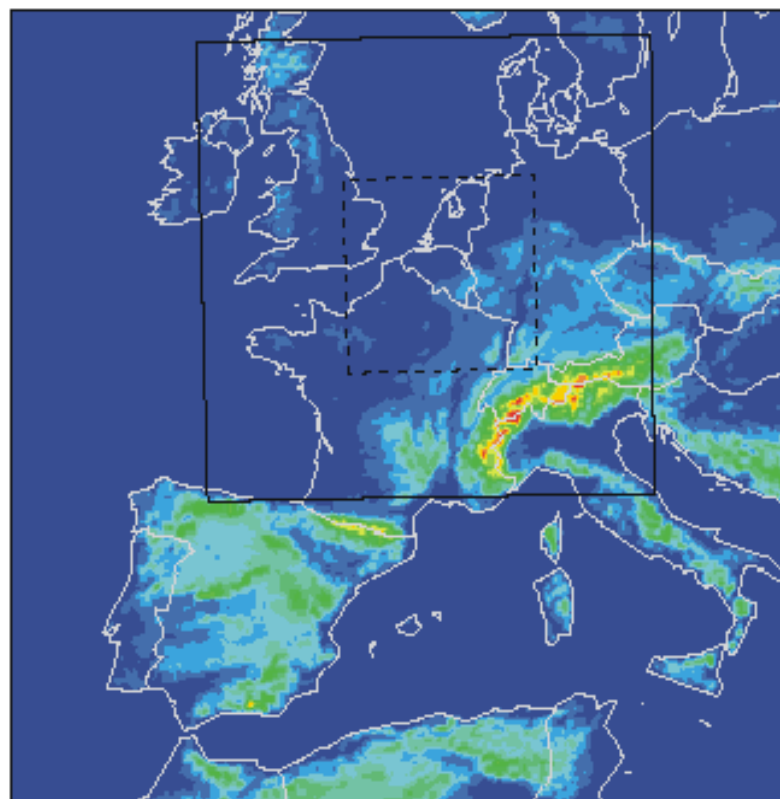
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- ALADIN-25 running on SGI origin 3400 (24 processors, 16 used for operational run)
- 7km resolution
- 2 runs daily, 00h and 12h
- Forecast period extended to 60h for pollution warnings
- Coupled to ALADIN/France
- Coupling to Arpège beyond 48h
- HAWK

# ALADIN/Belgium: new domain

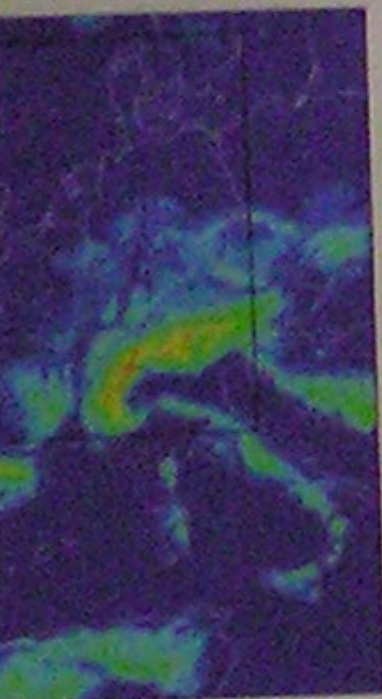
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Domain has been extended:  $108 \times 108 \rightarrow 240 \times 240$ .



> 48h)

ain was extended to  $240 \times 240$   
the same grid resolution.



ALADIN/Belgium domain  
ALADIN/France.

to 60h

llution warnings, the integration  
ended to 60 hours.

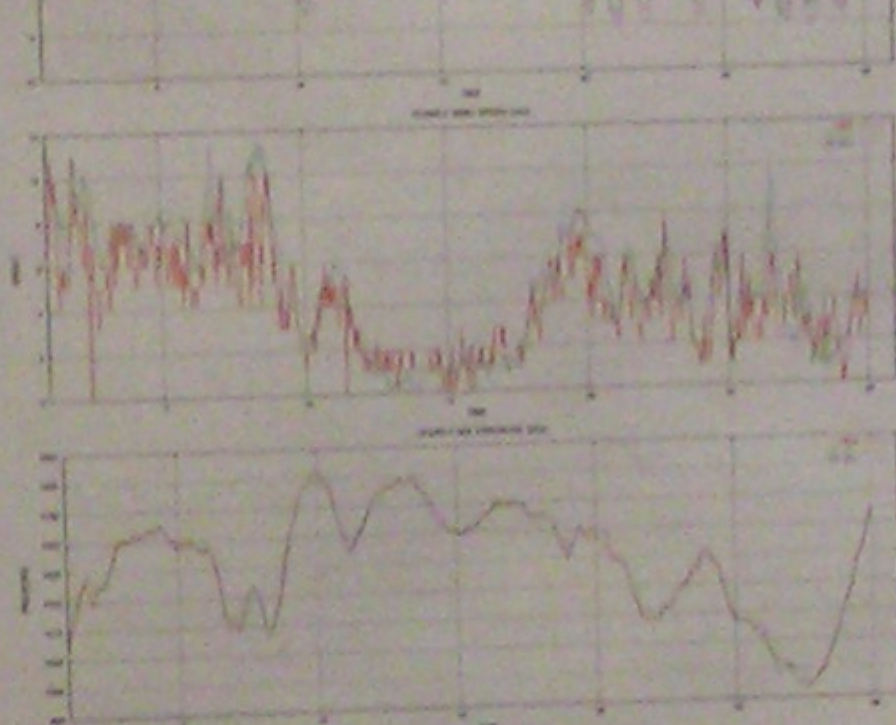


Figure 3: Hourly temperature, wind and surface pressure forecasts and observations for Ukkel (February 2004).

This is the known situation with overestimation of radiative cooling in very stable conditions.

## Monitoring the Coupling-Update Frequency

We approach this as a problem of undersampling. The coupling-update frequency can be monitored by using a digital recursive filter in the coupling model. This monitoring algorithm will be implemented in Arpège and could allow to adapt the coupling frequency in extreme cases.

We introduced a new transp  
ical conditions that are unfav  
pollution. For situations of l  
sphere, when atmospheric tr  
to make reliable predictions  
tions of non-reactive pollu  
wind speed and stability by  
facilitates the interpretation  
ational assessment of the si  
from ALADIN output.

