

High Resolution

Hirlam

Limited Area Model

Highlights of recent and planned
HIRLAM activities

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Workshop/ASM 2012, Marrakesh

7 -11 May, 2012

Organizational issues

The past year (since Norrköping) has been a year of rather many changes in the AAAH community

Within HIRLAM:

- A new HIRLAM MG coming into its own
- With some changes...
 - From Magnus to Jelena
 - From Trond to Inger-Lise
- A new challenge to meet in innovative ways
 - Operational cooperation

In our surroundings:

- A new ALADIN PM getting into his own
- LACE preparations for a new MoU and new projects

And lots of interesting science, of course!

Highlights of the past year (a personal view)

- ✓ Validation/performance of pre-operational Harmonie runs
- ✓ Progress made in assimilation of high-resolution observations, development of more flow-dependent methods and improved surface and cloud initialization
- ✓ Surface modelling and radiation activities
- ✓ TCF-2 status for GLAMEPS-v1
- ✓ Monitoring team

Highlights of the past year (a personal view)

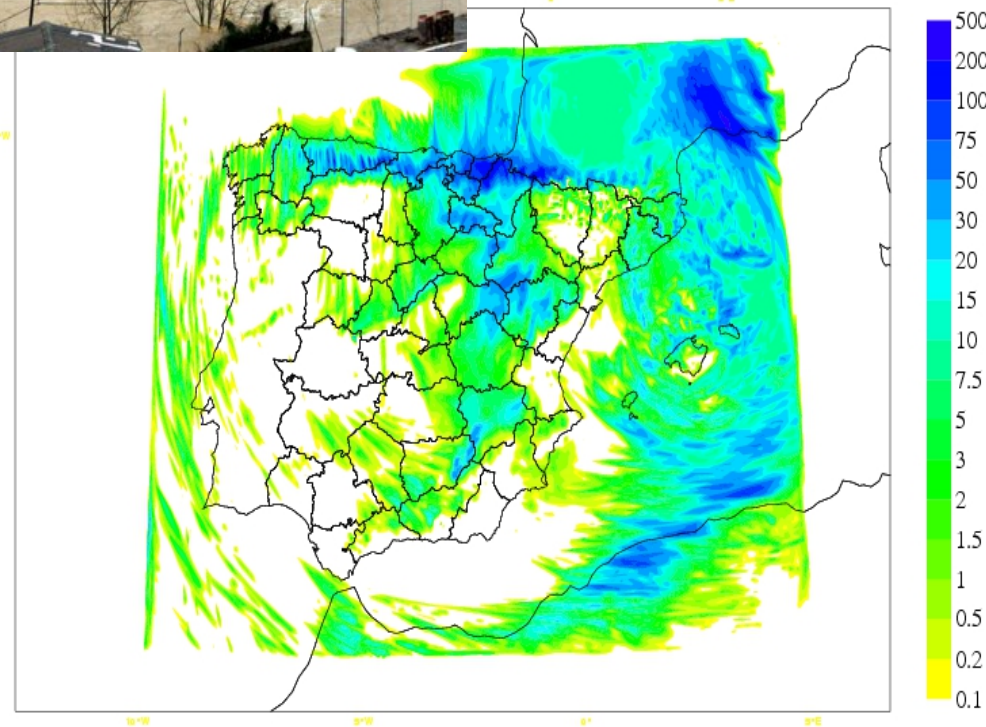
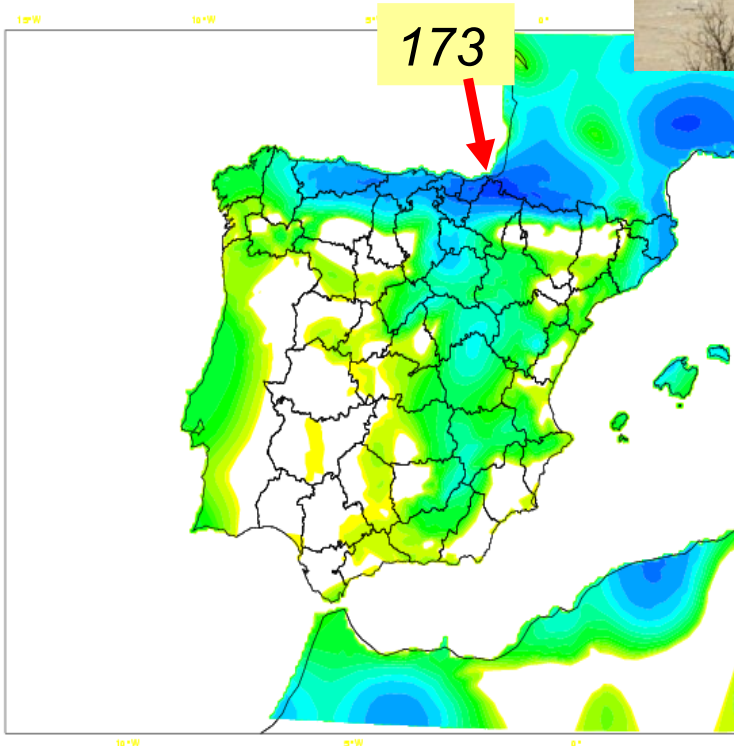
Good Harmonie pre-op performance in severe weather cases



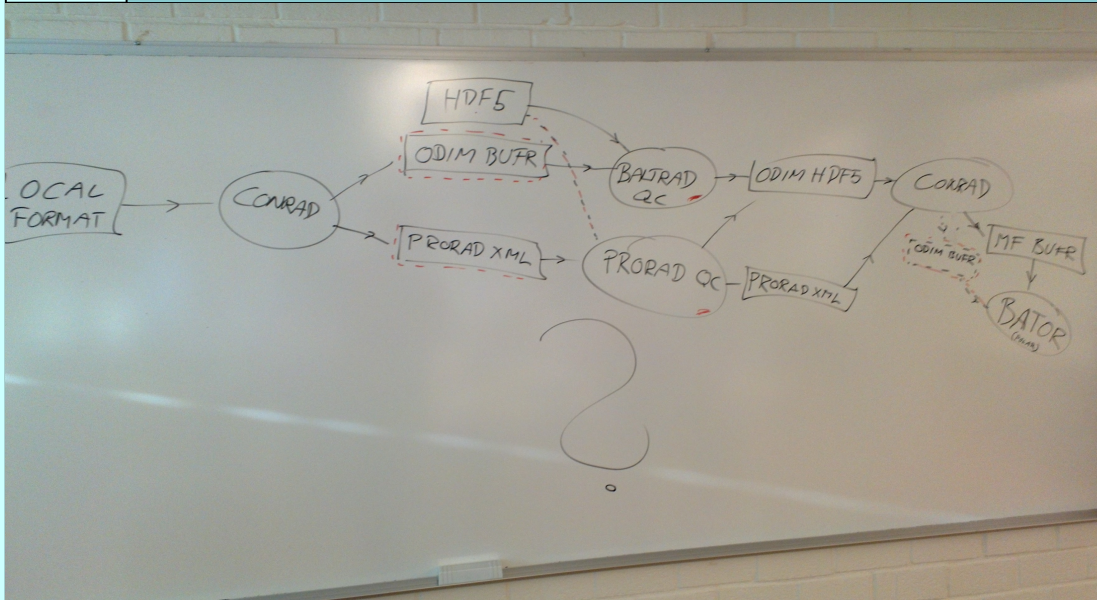
Floods in Pais Vasco

ANpp Analisis precipitacion acumulada (mm)
06/11/2011 06z HARM H+ 00 Valid: 06/11/2011 06z

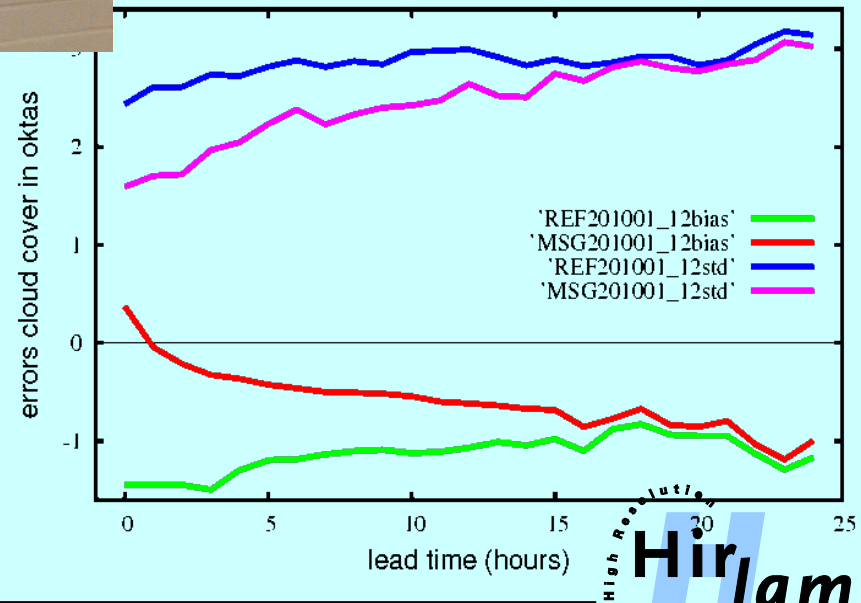
ulada (mm/24hr)
24 Valid: 06/11/2011 06z



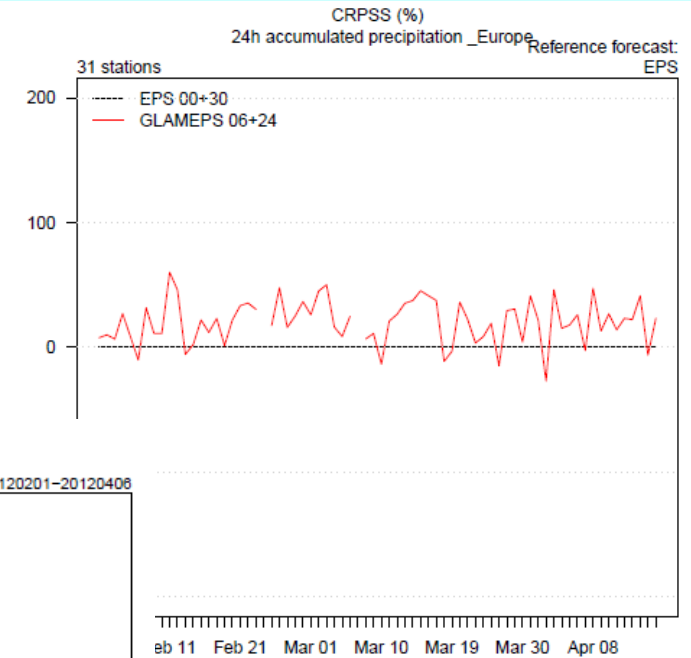
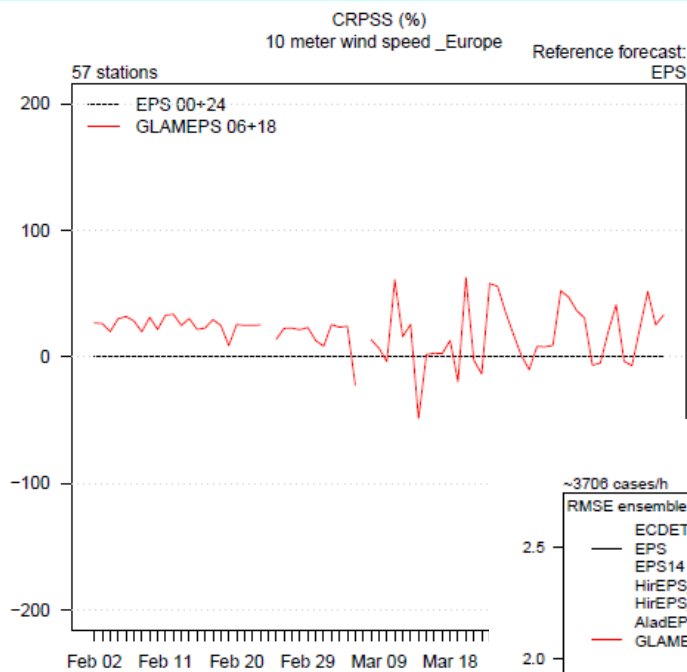
Highlights of the past year (a personal view)



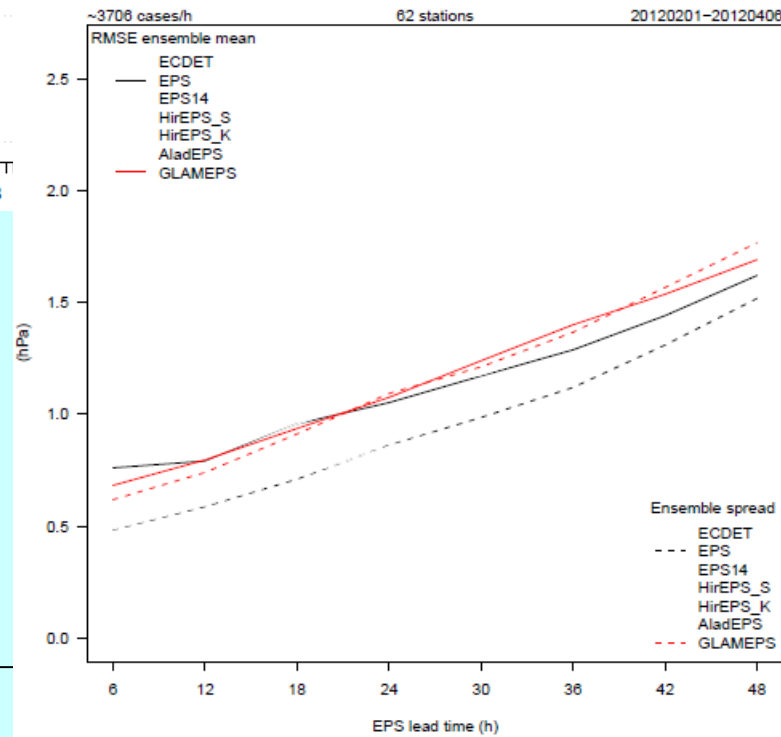
Hirlam clouds in January 2010



Highlights of the past year (a personal view)



Ensemble skill vs. spread
Mean sea level pressure



2012, 20120507

Scientific challenges (a personal selection)

- ✓ How to make the best use of hi-res observations (preprocessing, assimilation and cycling strategies, ...)
- ✓ Description of low clouds/fog, and winter stable boundary layer
- ✓ Convection-permitting EPS
 - Not merely constructing a workable EPS, but how to guarantee that it is constructed optimally and provides useful results?
- ✓ Computational efficiency on all of our HPC platforms
- ✓ OOPS/COPE developments => wider need for C++ expertise than originally envisaged
- ✓ And so on and so forth...

Plus plenty of challenges other than purely scientific

- ✓ Transversal activities: more interaction between DA, EPS and UA/SU physics needed, how to organize?
- ✓ Ensuring international exchange/access to high-resolution observations
 - Should be an SEP (Someone Else's Problem), really...
 - But we are the ones that suffer, so...
- ✓ Operational cooperation:
new task – but no prospects of additional man power ☹ ??
- ✓ Securing working together in hard economic times
 - make use of videoconferencing
 - ensure that meeting places alternate fairly
 - Any other ideas???
- ✓ Training, training, training...

So plenty left for us to do! Have fun this week!

