

## Chat during SURFACE session

**Benedikt Strajnar**9:17 AM

When using Netatmo for surface DA, have you checked/tuned the bkg. error correlation lengthscale?

**Laura Rontu**9:18 AM

Perhaps you mean the radius of influence for OI analysis?

**Benedikt Strajnar**9:19 AM

Yes, thank you.

**Maria Monteiro**9:19 AM

Which quality control do you apply to this type of observations ?

**Alena Trojakova**9:19 AM

What is an added value of pysurfes (python interface) to the current solution ? Is it not possible to use NetAtmo data without it ?

**Roger Randriamampianina**9:21 AM

@Maria: I think they use the TITAN QC in PySURFEX, unless Trygve objects.

**Jeanette Onvlee**9:22 AM

Yes, this was also said by Patrick.

**Roger Randriamampianina**9:22 AM

@Alena: Yesterday Daniel showed comparison of these two schemes.

**Maria Monteiro**9:22 AM

OK, so does not apply to CANARI, then... thanks !!!!

**Jeanette Onvlee**9:23 AM

@Alena: Pysurfex is indeed needed because in CANARI it is not possible to treat the NetAtmo stations as something distinct from SYNOP. But they do need to be treated quite differently in various ways.

**Roger Randriamampianina**9:23 AM

@Maria: yes not through CANARI

**Patrick Samuelson, SMHI**9:24 AM

The developer of titanlib gave a presentataion here a while ago: [https://docs.google.com/presentation/d/18sICfb8mb25yCxnaviZvHAGjkiZaY7inX3e-6PMmAOQ/edit#slide=id.gb3dbeb241\\_2\\_278](https://docs.google.com/presentation/d/18sICfb8mb25yCxnaviZvHAGjkiZaY7inX3e-6PMmAOQ/edit#slide=id.gb3dbeb241_2_278)

**Maria Monteiro**9:24 AM

Many thanks for all the info 😊

**Alena Trojakova**9:25 AM

@Jeanette OK, thanks

**Patrick Samuelson, SMHI**9:25 AM

The QC includes e.g. a spatacl consiteny chech and buddy check.

**Dmitrii Mironov**9:26 AM

(1) I assume the grid spacing in the multi-layer snow scheme is determined dynamically? How do you handle think snow? Is there a minimum layer thickness?

**Roel Stappers**9:26 AM

In the upper air DA of Netatmo (surface pressure only) we introduced a new code type to able to distinguish Netatmo from SYNOP (so we can bias correct Netatmo only).

**Dmitrii Mironov**9:26 AM

(2) How do you parameterize snow density and (importantly!) snow heat conductivity?

**Patrick Samuelson, SMHI**9:27 AM

pySURFEX with titanlib allows us to treat different observations in different ways. Thus, more aggressive QC is applied to the lower quality Netatmo observations than to SYNOP.

**Alena Trojakova**9:29 AM

@Patrik Thanks for your clarification.

**Patrick Samuelson, SMHI**9:30 AM

@Dmitrii: The 12-layer snow is described here doi:10.5194/tc-10-853-2016. Thin snow layers at the top and bottom, thick in the middle.

**Stefan Schneider (ZAMG)**9:31 AM

Asmund, how did you decide to use wg2-wg6 and tg1-2 as soil layers to be affected by the assimilation (and not some other layers)?

**Camille**9:32 AM

Canari can also handle obstypes and codetypes to distinguish between different types of observations and apply a different treatment to each of them

**Daniel Santos Muñoz**9:33 AM

@Alena @Maria in my presentation is the first results of the comparison PYSURFEX = pysurfex + ANASURF=0I; CANARI = CANARI\_OI\_MAIN and PYSURFEX bufr = pysurfex + ANASURf = OI only Bufr

**Ekaterina**9:34 AM

Asmund, what about computational efficiency? You increase the complexity of the schemes a lot!

**Daniel Santos Muñoz**9:34 AM

@Trygve is working on a more long term comparisons

**Ekaterina**9:46 AM

The Desrosier method is developed for variational methods. How you applied it with OI?

What is the resolution of SEVIRI? Did you applied any thinning?

**Roger Randriamampianina**9:47 AM

@Camile: Thanks for the very interesting results. How the "weak coupling" was performed in your study?

**Ekaterina**9:47 AM

Thank you for the very interesting presentation!

**Helga Toth**9:50 AM

Camille do you want to introduce this obs. into the operational suite?

**Stefan Schneider (ZAMG)**9:50 AM

Camille, which soil scheme is used for the experiments?

**Isabel Monteiro (IPMA)**9:50 AM

Good morning, @Camile: did you use the 15 min LST-SEVIRI from the LSASAF? (and ~4/5km spatial resol over France). Do you have an explanation for the night/day differences?

**Dmitrii Mironov**9:53 AM

Thanks for the info, Patrick.

**Isabel Monteiro (IPMA)**9:57 AM

Ok, shadows in the domain, during the day, makes sense. Thanks

**Morten Koltzow**9:57 AM

If you assimilate T2m SYNOP, maybe a larger impact can be found away from the SYNOPs if you also use them to verify?

**Alena Trojakova**9:57 AM

Do you perform a separate analysis for LST in CANARI ?

**Roger Randriamampianina**9:58 AM

Thanks a lot Camille!

**Ekaterina**9:59 AM

@Morten: verification is done against data at different time, comparing with data for assimilation.

**Camille**10:00 AM

yes, we add the LST variable in Canari (in addition to T2m and Hu2m)

**Alena Trojakova**10:01 AM

Thanks ! Very nice presentation :)

**Stefan Schneider (ZAMG)**10:01 AM

Thanks!

**Camille**10:02 AM

Thanks! Here is Zied article: <https://www.mdpi.com/2072-4292/11/20/2371>

**Florian Meier**10:19 AM

Do you use any 923 climatology in PREP?

**Guðrún Nína Petersen**10:19 AM

Thanks for an interesting talk!

**Maria Derkova**10:19 AM

In which cycle was the correction in CANARI to reject observations in case of inconsistency with LSM implemented?

**martina tudor**10:21 AM

thank you Katja

**Florian Meier**10:21 AM

Thank you?

**Claude Fischer**10:21 AM

thank you Katia for this interesting talk indeed

**Florian Meier**10:25 AM

I think that we do not realise the problem in LACE does not mean that it does not exist. We do not run snow analysis and even if, we have fewer lakes of critical size (the big ones do freeze only rarely, the small ones do not matter on 2km) and only rarely seaice.

**Roger Randriamampianina**10:38 AM

Indeed very interesting talk. I think snow analysis shows well the issue, but similar problem is/can be seen in upper-air analysis with scatterometer (ice edge, cost line) and radiance (land/sea/lake) assimilation.

**etra Smolikova**10:50 AM

Side meeting on dynamics today at 14:35 at <https://bluejeans.com/442449128>.

**martina tudor**10:50 AM

thank you Petra and Patricia

**Petra Smolikova**10:51 AM

Please feel free to join us at the dynamics side meeting.

**Me**10:52 AM

I will send a message to all participants, in order to let know also people who might not be attending the meeting today

**martina tudor**11:08 AM

question

did you use Antifibrillation scheme in Alaro

with Toucans

af scheme is somehow making fibrillations in Surfex

**Radmila** 11:17 AM

In TOUCANS the AF is not necessary any more.

**Rafiq** 11:18 AM

yes Radmila thanks

**Dmitrii Mironov** 11:25 AM

Processes in the ocean seem to be fast... What is the relative importance of vertical and horizontal transport/mixing in the ocean? In other words, how important is the advection in the ocean for the short-to-medium range NWP?

**Benedikt Strajnar** 11:27 AM

Whitout the DA for the ocean component, how do you plan to implement the cycling with the coupled system in time?

**Dmitrii Mironov** 11:28 AM

Thank you!

**Stefan Schneider (ZAMG)** 11:29 AM

Cindy, what is the computational cost of the models (NEMO, WW3)?

**Maria Monteiro** 11:29 AM

would it be importat for coastal regions ? for istance, coatsal fog ?