some news about

ALADIN Workshop & HIRLAM All Staff Meeting

30.3. – 2.4.2020

Christoph Zingerle

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- Advent of high resolution (convection-permitting) limited area EPS
  - Verification tools for EPS and high resolution spatial fields
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    - A lot of interaction between code in different style / languages

```
#!/bin/bash
```

    - Small mistakes /bugs in settings

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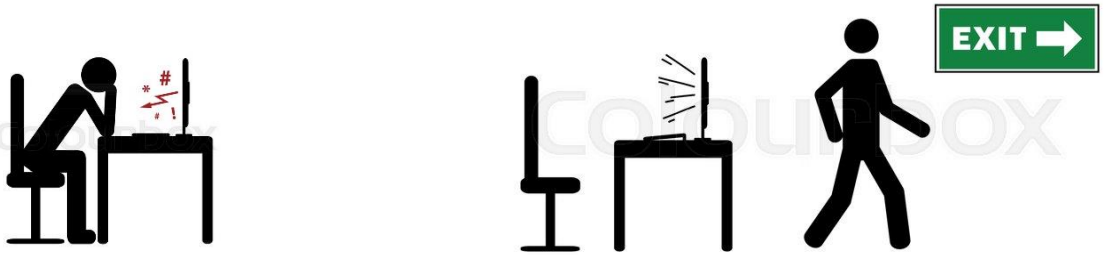

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- Use only one coding language
  - Easier to maintain code (less dependencies on different languages, bugfixing)
  - Force people to make use of 
  - Documenation on Googledocs 

CONTENTS

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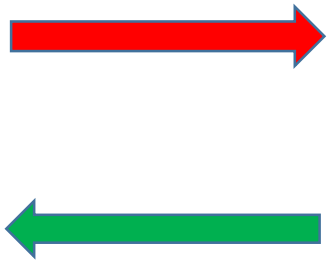

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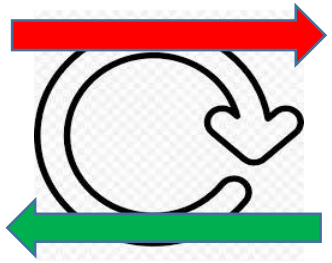

HARP (v1, v2) ⟹ harp

- … further reduce to a number of r-packages

Input and output data for verification:

- VFLD, grib, FA, netCDF
  - including interpolation
- VOBS, SQLite

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- Handles SQLite-files (using harpIO)
- Wide range of classical scores
- All kind of EPS-scores

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Plot verification results and data:
- Plotting scores and data
- Interactive shiny-interface

harp

harp should install with all dependent libraries from:

https://github.com/andrew-MET/harp

There is a simple tutorial to start with:

https://andrew-met.github.io/

Part 1: Preparing the data

Part 2: Verification process

Part 3: Plotting verification socres

Documentation and examples to most of the R-functions

Inside each of the packages

harp

Training of users:

Training Course

Danish Meteorological Institute
15 - 17 October 2019

Andrew, Alex, Bent, Christoph, Daniel

- R basics
- Tidyverse
- Harp:
  - harpIO: Reading and interpolating data (det. and EPS)
  - harpPoint: Point-verification of det. and EPS-forecasts
  - harpVIS: Plotting verification scores
- How to group and filter data, get conditional verification, significance measures, joint probabilities …
- Prepare for the shiny interactive visualization
- Spatial verification, manage with the fields, …

harp

Training of users:

Training Course

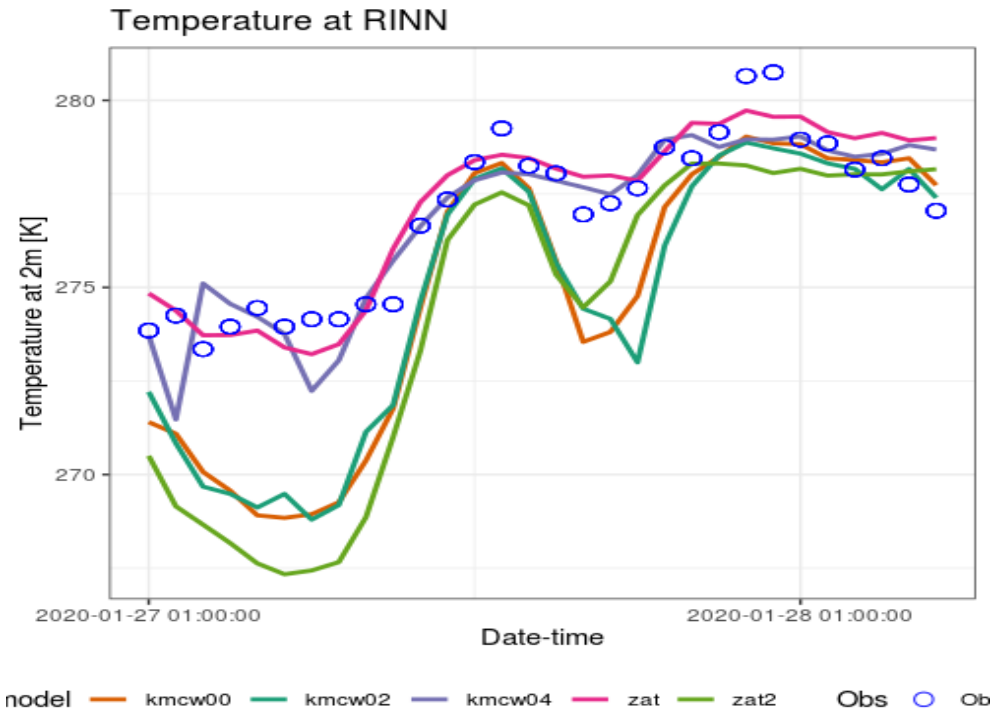
Danish Meteorological Institute

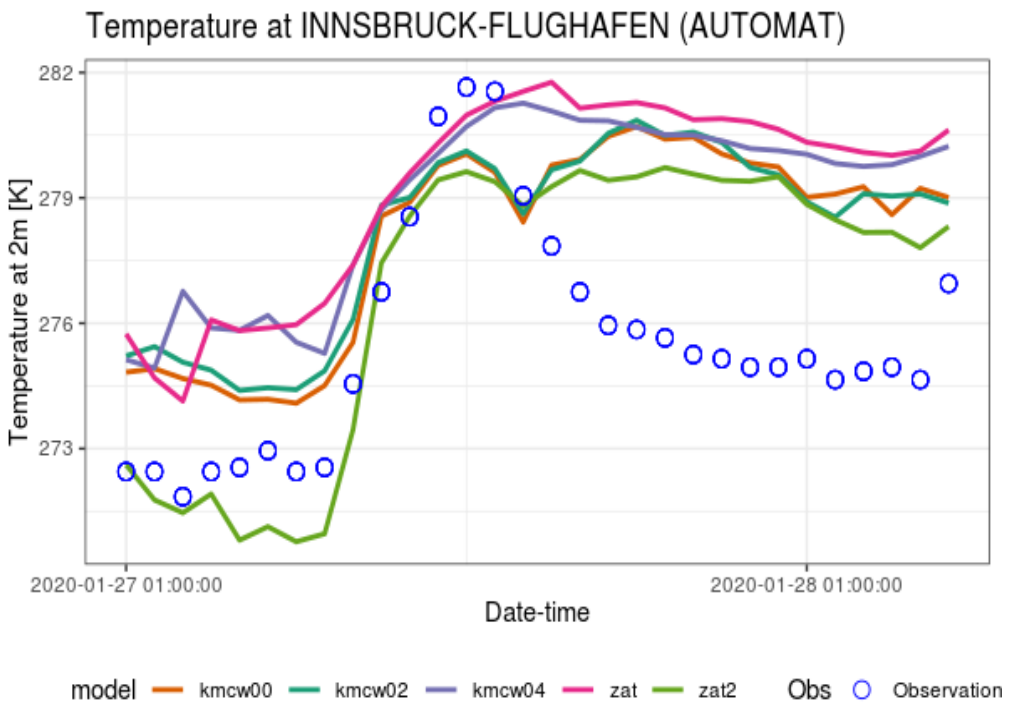
15 - 17 October 2019

- Presentations
- Showcases
- Hands-on-tutorials
  - ~30 Participants
  - 3 Days
  - 5 Projects
    - as a starting point to for participants

✓ **It‘s crutial to know at least some R**
✓ **Understand a bit about the concept of tidy data**
✓ **Have examples available**

harp local implementation





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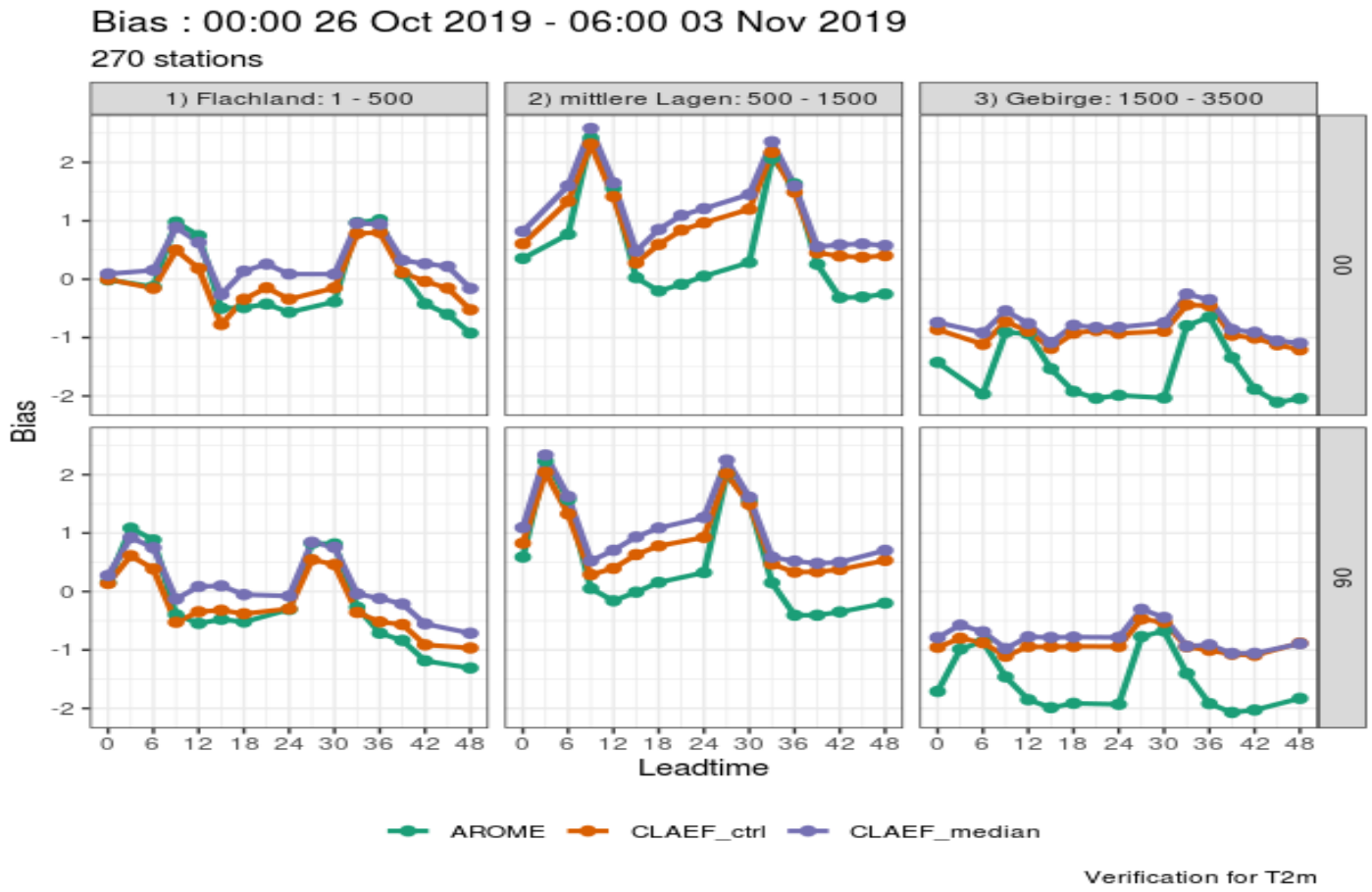
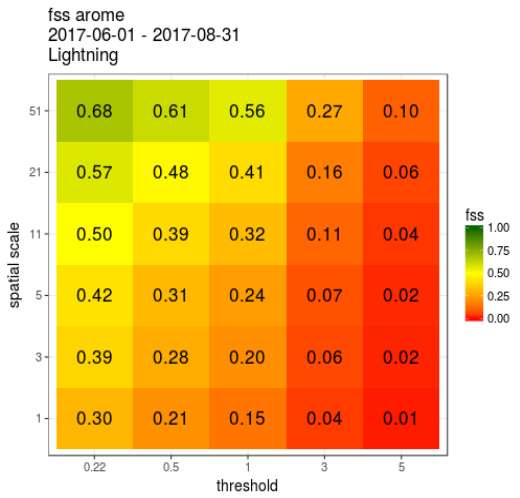


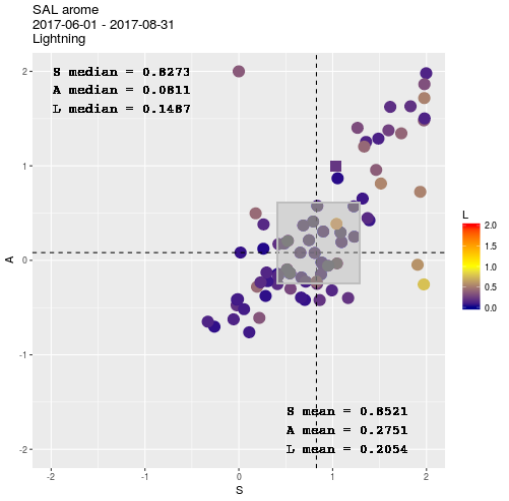
harp todos

- Most importantly we need to get visualization of spatial verification working

- Implementation of new scores
  - Both in point / EPS and
  - Spatial verification
  - Extreme weather conditions

- Tutorials
  - Web-based, step-by-step explanations
  - On-site training with users





THANKS!