

# Monday: data assimilation and dynamics

## Data assimilation:

- Trying to find how to make most of the data: different approaches for VarBC, thinning, B-matrix formulations
- Cloud initialization (Florian, Erik)
- Observation preprocessing: Bator vs Oulan, vs COPE; consider SAPP for GTS processing?
- OOPS, COPE, ESCAPE: “fairly complex common code updates”

## Dynamics:

- Strategy for implementing FD solver consolidated:
  - Ludovic: “grid point solvers may be efficient enough; steep slopes may be more problematic than scalability if we cannot go beyond 500m resolution”
  - Filip: local SI scheme: as SI and derivative computations are done in grid point space, spectral space computations need to be replaced by grid point computations

# Tuesday: Physics; Quality, user and climate aspects

## Physics:

- Fog forecasting and ways to improve it remain critical area of work
- 1D “common” MUSC evaluation of parametrizations/options: valuable tool, enlarge/organize MUSC community better to maintain it properly?
- Radiation validation in NWP: how to arrange this more thoroughly, which observations

## Quality, user and climate aspects:

- HARP: significant step forward in functionality
- Systematic tracing of causes of operational systematic errors: very important but not easy
- Urban observation networks: a missing link!
- Re-analyses: UERRA, Mera

# Wednesday: Surface, System and scalability

## Surface:

- Many relevant presentations to this topic, not all of them included in this session because of session timing issues – much ongoing work in this area!
- Coupling ALARO-1 with Surfex-v8 on Cy43T2: rapid work, will facilitate research for others!
- Lake: lots of problems to overcome, has taken time but will bear fruit now.
- SST: don't take OSTIA/ECMWF SST analysis for granted
- Laura's offers from maritime modellers on indirect validation: we intend to take her up on that!

## System and scalability:

- New mitraille: invitation to use locally, test in more distributed way
- Consider basic targets on script system evolution
- Atlas: Good to hear progress on this important supporting framework
- Single precision: something to consider also for LAM (benefits and limitations)
- Jacob/Per: Stress the importance of adapting implementation to the hardware
- Bent: Multiple grid approach: tbc at very high resolution

# Thursday: EPS

## EPS:

- Clear shift in research to convection-permitting EPS, much attention to phys. perturbations
- Multi-model = multi-climate?
- Reconsider how to evaluate for extreme cases: target scores, case evaluation

# General setup

- Again, many requests for side meetings!
- Attempt to arrange those at end of session as much as possible. Discussions at end of sessions kept limited, in view of the side meetings
- Comments on the meeting as a whole?

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- Comments on the meeting as a whole?
- Presentations and posters: put on web, newsletter
- 2018: 16-19 April, Toulouse.
- 2019: likely Spain (to be confirmed officially)
- Friday: HMG-CSSI meeting at FMI