Introduction
and news about our activities

Massimo Milelli
&
many others

Agenda Monday morning

PARALLEL SESSION WG6 (Chair: Massimo Milelli) – Room MR211

09:30 - 10:00 M. Milelli, Introduction and overview

10:00 - 11:00 Uli Schättler, COSMO SCA report

PARALLEL SESSION WG6 (Chair: Massimo Milelli) – Room MR244

11:30 - 11:45 Daniel Rieger, INT2LM SCA report

11:45 - 12:00 A. Montani, COSMO LEPS update

12:00 - 12:15 Katherine Osterried, Github updates

12:15 - 12:30 B. Maco, User Support activities

Agenda Monday afternoon

PARALLEL SESSION PP C2I (Chair: Daniel Rieger) – Room MR211

14:30 - 16:00 Daniel Rieger, PP C2I session

PARALLEL SESSION NWP TS (Chair: Massimo Milelli) – Room MR211

16:30 - 17:30 Massimo Milelli, NWP Test Suite

DEVELOPERS MEETING (Chair: Uli Schättler) – Room MR211

17:30 - 18:30 Uli Schättler, Developers meeting

Agenda Tuesday afternoon

HPC session (Chair: Xavier Lapillonne) – Room MR3

14:30 - 15:00 X. Lapillonne, PP POMPA summary

15:00 - 15:30 Zbigniew Piotrowski , PP CEL-ACCEL

15:30 - 16:00 X. Lapillonne, PP IMPACT

HPC session (Chair: Xavier Lapillonne) – Room MR211

16:30 - 17:00 All, General discussion

Web outlook

- COSMO-LEPS meteograms page:

http://www.cosmo-model.org/content/tasks/leps/boxgrams/default.htm

- Approaching event pops-up in the top-right corner of the home page

- Info about licensees in "Operational" pages

- Operational pages to be updated:

    1) Italy – deterministic pages (latest update in 2013)

    2) Greece (latest update in 2015)

    3) Russia (latest update in 2015)

Documentation

- Technical Reports:

    1) COsmo Towards Ensembles at the Km-scale IN Our countries" (COTEKINO), Priority Project final report. Marsigli et al.

    2) The COSMO Priority Project CORSO Final Report. G. Rivin et al.

- Common plot activity 2017-2018

- NWP Test Suite Report

- Scientific doc updated (Part I – Dyn and Num): added sections about spectral nudging and the new Bott tracer advection scheme

- Expected TRs during next COSMO year: PP KENDA, PP POMPA, PP SPREAD, PP CDIC, PP INSPECT, PP CELO, PP CORSO-A

Documentation

- Newsletter: September 2018, to be published in September (slight delay…). There is the necessity to rethink about it also in relation to the transition to ICON-LAM (also TRs). To be discussed during the SMC meeting.

- DOI request for TRs and Newsletter (maybe) on the shoulders of SPM. To be discussed during the SMC meeting.

PP POMPA

Finished officially

The GPU porting is formally completed (almost) all features are implemented:

- Bechtold scheme is being completed by Italian colleagues

- there is one test that is failing (with a special configuration) with the C++ dycore after a change in the input file from Uli (under investigation)

- the performance is not as good as POMPA (to be discussed during SMC regarding the optimization with CLAW directives)

- a final review of the latest change is pending from the SCA

PP IMPACT (ICON on Massively Parallel ArChiTecture)

Submitted to SMC

Future HPC will show ever more parallelism than actual GPU & CPU. There is the need to further adapt our models and programming tools and to investigate tasks parallelism. PP IMPACT will investigate these aspects for **ICON**

- First implementation of a baseline **OpenACC** version:
  - initial version of the dycore is available
  - physical parametrizations require a full port
- Need to invest in **software engineering** beyond OpenACC in order to make support of different platforms maintainable in the long term:
  - implement ICON Dycore based on **GridTools-DSL (Domain Specific Language)**
  - evaluate use of **CLAW-DSL** abstractions for the physical parameterisation
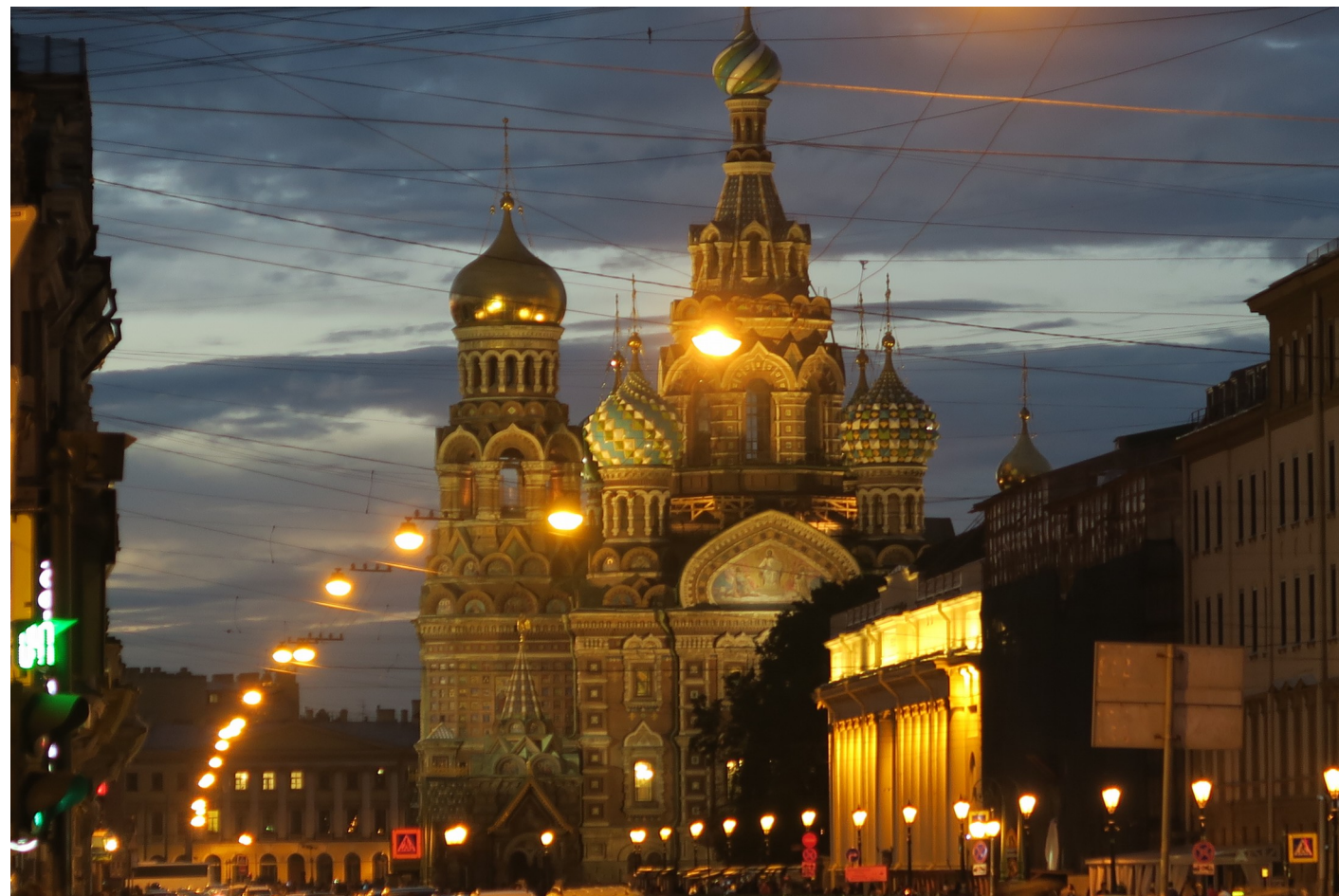 - **improve modularity** of the model structure

PP C2I

Ongoing (started 4/18)

Phase 1 - Preparation & Installation

It started with the ICON-LAM training course in April 2018 and lasts until December 2018. In this phase, the participating institutions install ICON on their HPC systems and gain experience in running the model. At the end of Phase 1, setups that are similar to the institutions' current deterministic COSMO-model setups are defined and tested.

All the participants have installed the model (sometimes with some trouble).

There will be a dedicated workshop from 15/10 until 19/10 at the DWD training center in Langen. A COSMO Activity Proposal requesting funds to support two participants from each of the COSMO partners has been accepted.

Thanks for your attention and for your work !