

CCPP Training

College Park, MD, March 12-13, 2019

CCPP Training Day 1 Wrap-up

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Global Model Test Bed (GMTB)



Happy Hour Tomorrow after Training

- Franklyn's (<http://www.franklinsbrewery.com/>)



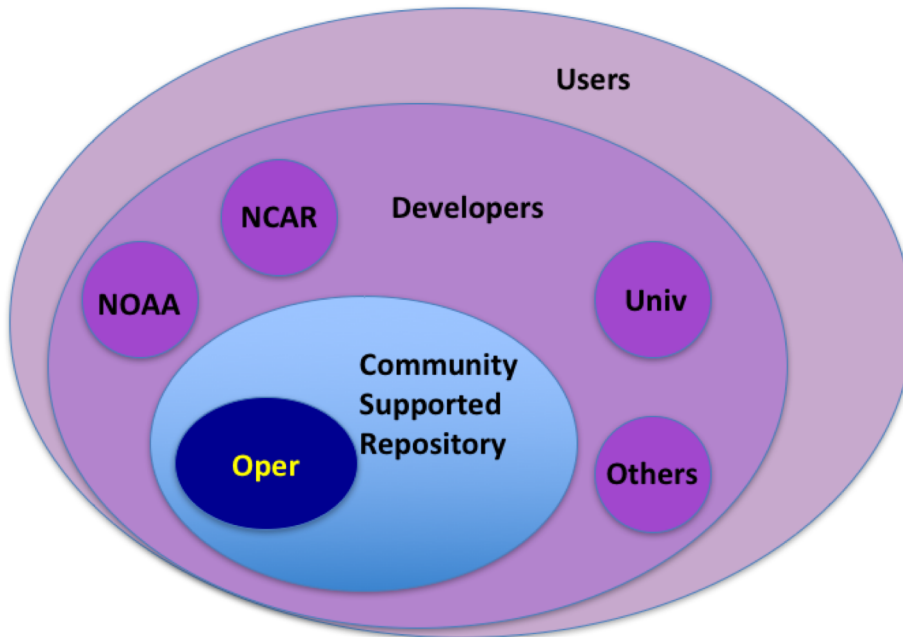
Topics for this Session

- CCPP vision
- CCPP ecosystem
- CCPP and hierarchical testing
- CCPP collaborations
- CCPP transition to EMC
- How to get help
- Q&A

CCPP Vision For reading later

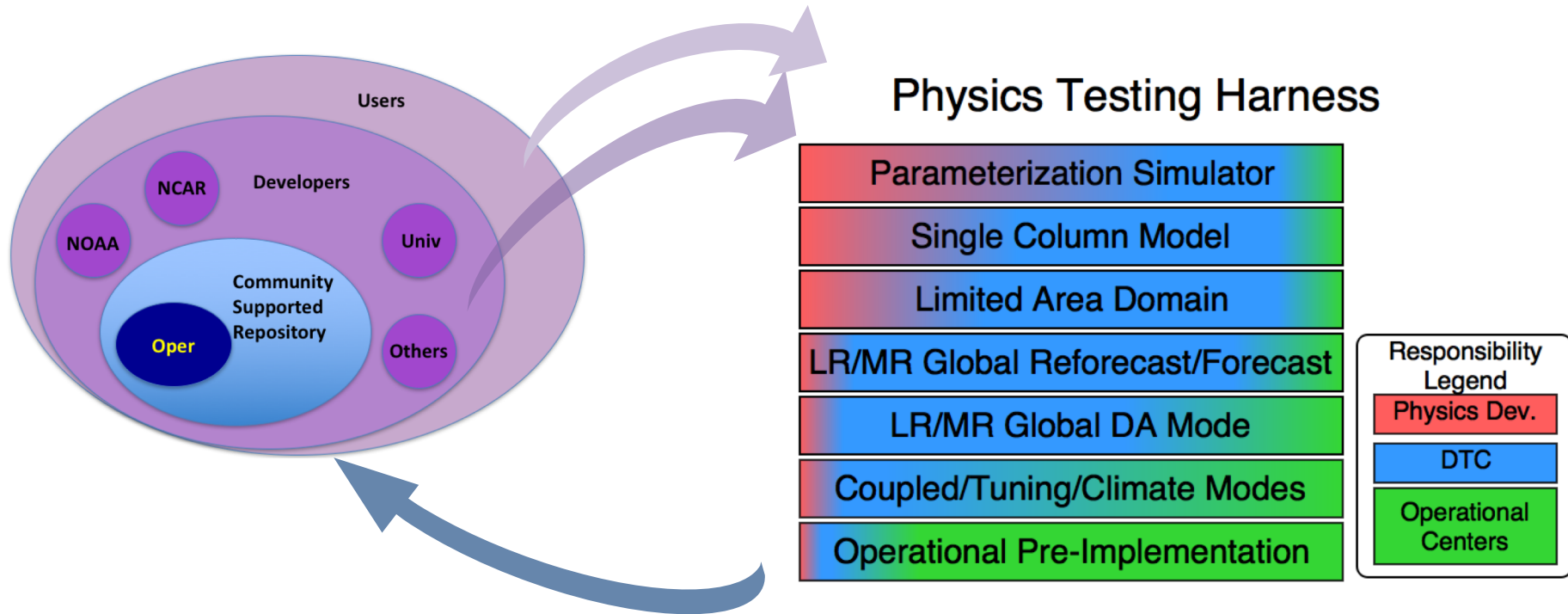
The CCPP enables vibrant distributed development of physical parameterizations that effectively translates into benefits for NOAA operational models. In its mature stage, the CCPP will have a supported subset containing a few complete suites plus additional parameterizations that have undergone initial testing and demonstrated potential for advancing NCEP operations. This mature CCPP will be supported to the community, who will use it to conduct experiments employing their own tools (including dynamical cores other than FV3GFS), as well as the GMTB hierarchical testbed, which relies heavily on a single-column model and FV3GFS. Some community members will just use the package, while others will develop code and propose their innovations for inclusion in the supported CCPP. A subset of the innovations will get accepted and be included in additional tests by EMC, leading to operational implementation at NCEP. All members of the ecosystem will synergistically benefit from the CCPP to meet their own missions, ranging from conducting cutting edge research and publishing papers to improving operational numerical forecasts.

CCPP Vision – Key Points



- Vibrant distributed development
- Subset is vetted and supported to the community
- Users, developers, operational implementers synergistically benefit
- Usable by various models/dycores
- Translates into benefits for NOAA operational models

CCPP and Hierarchical Testing



CCPP contains both operational suites and innovations for the next few years

The Way forward with other Hosts

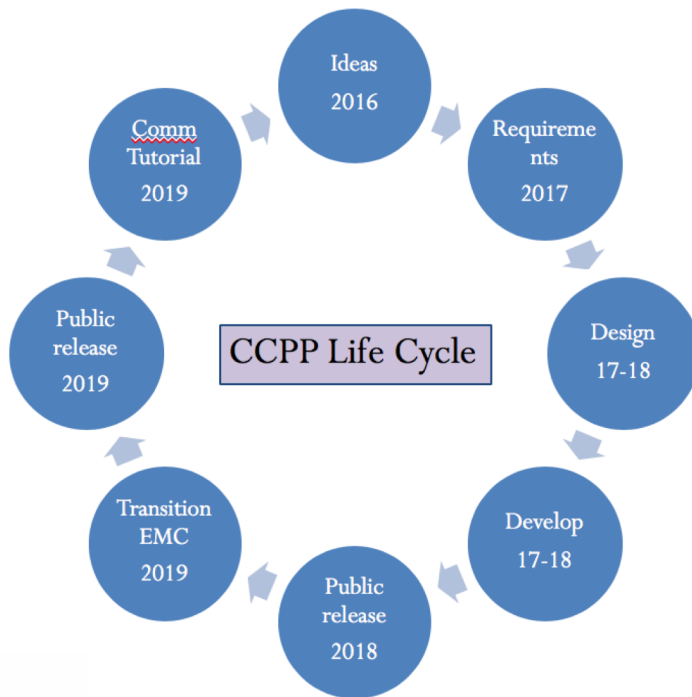
The CCPP-Framework is currently being installed in

- CESM
- WRF
- MPAS
- Musica (Community Chemistry model)
- NEPTUNE

This opens opportunities for

- Enhancements in the CCPP-Framework
- Use and improvements of UFS physics at collaborating institutions

Where We Are in the R20 Process



- EMC and GMTB have devised a formal process leading to inclusion of CCPP in master code – April 2019
- During the transition period, NEMSfv3gfs will be able to run with or without CCPP
- During the transition period, all necessary parameterizations will become CCPP-compliant
- Add UFS applications, including coupled, will transition to use CCPP

How to Get Help

- Visit CCPP website
 - <https://dtcenter.org/gmtb/users/ccpp/>
 - Scientific documentation
 - CCPP Developer's Guide
 - Technical and Users Guide for CCPP + SCM
- Please direct questions to gmtb-help@ucar.edu
 - Questions are recorded in ticketing system and can be answered by various GMTB team members
- Stay tuned for a broader CCPP Tutorial later this year

Note that GMTB is working on expanding documentation. Coming soon!

Q&A

