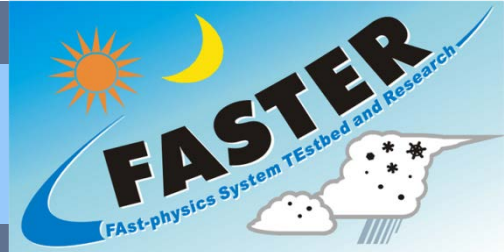


- ❑ SCM Testbed: applications, additions, improvements
- ❑ SCM experiment design, ensemble forcings, case vs. long term  
(*use of nudging, periodic reinitialization*)
- ❑ Evaluation/Intercomparison strategies
- ❑ Parameter sensitivity study, other models, which fundamental quantities  
must be included in the metric?
- ❑ Scale analysis
- ❑ Convective/stratiform partitioning
- ❑ Others?



# Fast Physics Testbed for the FASTER Project

Web-based SCM-Testbed, <http://www.bnl.gov/esm>

Select a model [Documentation](#) | [Code Browser](#) | [Specifics](#)

New parameterizations

CAM5/BAM  CAM5/MAM3  CESM/CAM4  CAM4  CAM3.1  GFDL  GISS  CAM Dev

+ Select physics schemes User modules for CAM Dev:

+ More model options

Regime-based simulations

New analysis products

+ Select forcing data

IOP  Continuous Forcing  Ensemble Forcing  Regime  User data

Select case of interest

Select the starting time

- 2009-06-01 00:00:00
- 2009-06-01 00:20:00
- 2009-06-01 00:40:00
- 2009-06-01 01:00:00
- 2009-06-01 01:20:00
- 2009-06-01 01:40:00

Select the ending time

- 2009-06-01 00:00:00
- 2009-06-01 00:20:00
- 2009-06-01 00:40:00
- 2009-06-01 01:00:00
- 2009-06-01 01:20:00
- 2009-06-01 01:40:00

+ Forcing options

+ Simulation options

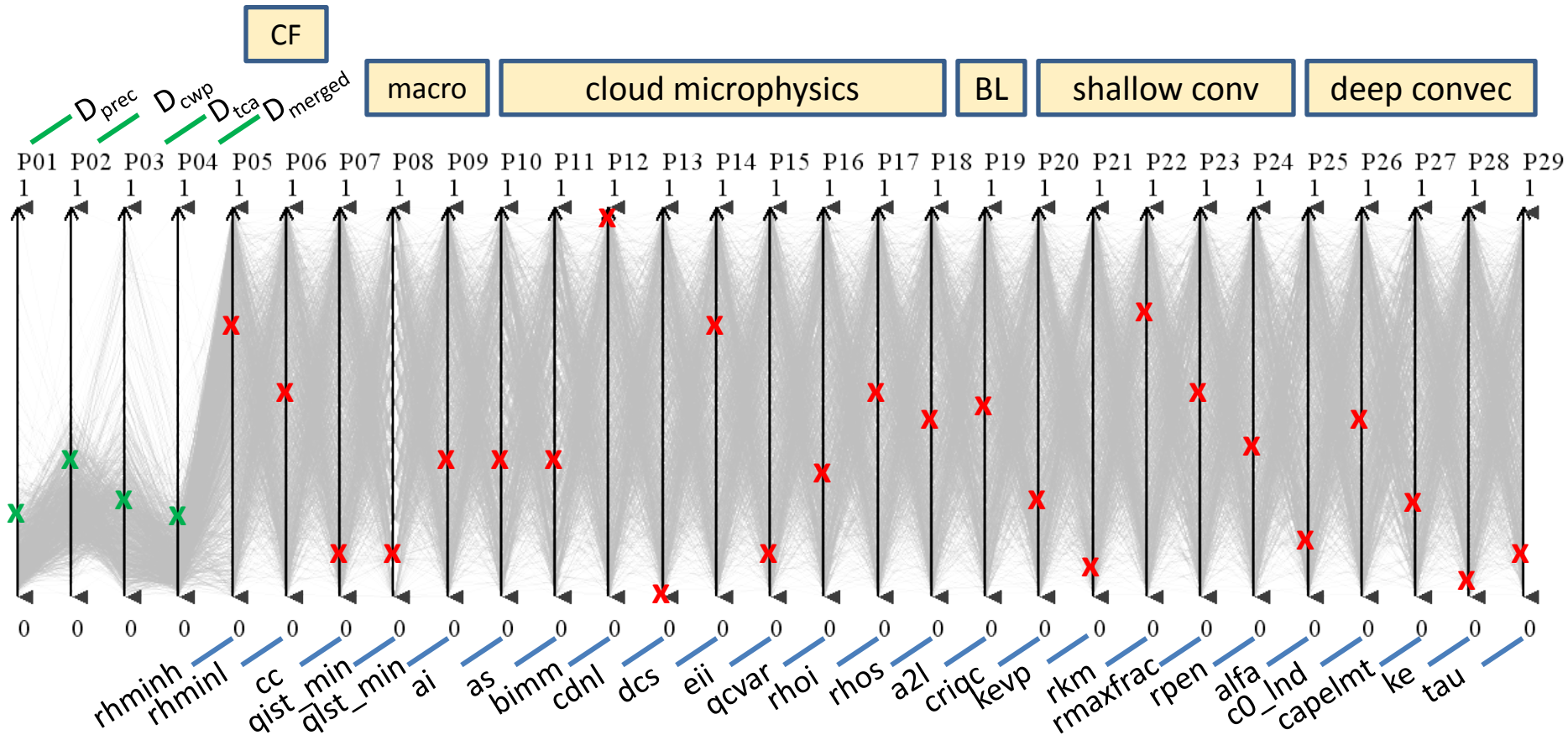
+ Summary of SCM experiment settings

Interactive simulation and evaluation/visualization

**00:00:19** 2009-06-02 09:00:00 ....

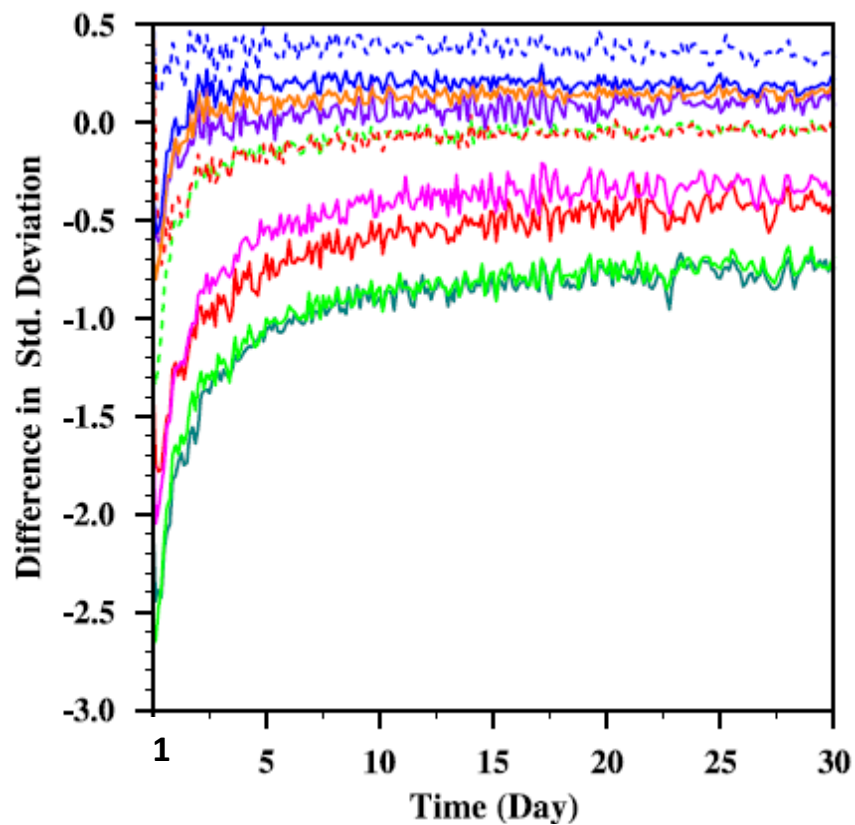
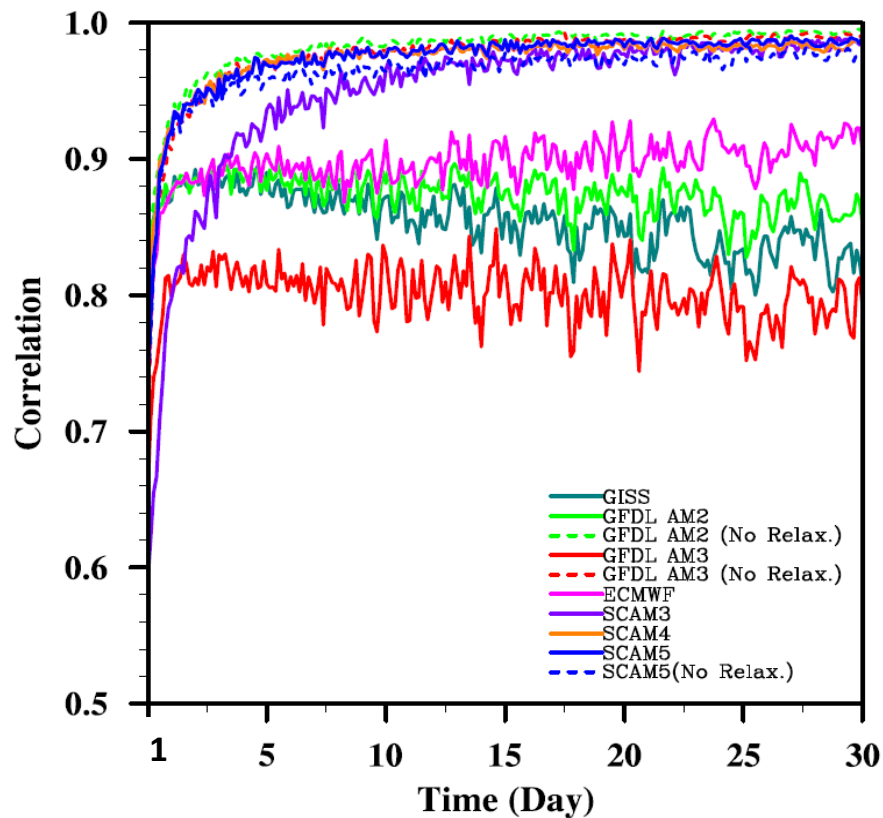
# Parallel coordinate view of 1024 realizations,

*with quasi Monte Carlo parameter sampling*



**x** The default values

# What is optimal time scale for effective evaluation of long-term simulations?



## **Convective/stratiform partitioning (cloud and precipitation)**

*have been directly and exclusively based on what model convective and large-scale cloud parameterization tell us.*

Is it meaningful to shift to sub-column sampling,  
use sub-column thermodynamic and hydrometeor profiles  
to compute radar reflectivity, classify as NSSL's NMQ  
(National Mosaic & Multi-sensor QPE) does  
then evaluate against similar radar products

- ❑ SCM Testbed: applications, additions, improvements
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