

Model fitness-for-purpose workshop

23-24 February, 2017

Agenda

Location: Rm 022/023 (ground floor), Max Planck Institute for Meteorology (MPI-M),
Bundesstr. 53, Hamburg, Germany

Thursday, Feb 23

09:00 Welcome, introductions, and logistics (J. Marotzke)

09:20 Background and overview of meeting objectives and agenda (G. Flato)

09:40 Related model evaluation activities and connections to CMIP6 (V. Eyring)

10:00 Philosophical issues: what do we mean by 'fitness-for-purpose', and how would we know? (W. Parker)

11:00 COFFEE BREAK

11:30 Limitations with respect to *assessing* model reliability

- P. Thorne, F. Otto, G. Tefera-Diro, P. Stott (5 min each) Discussion

12:30 LUNCH

13:30 Different evaluation approaches (such as process-based vs. standardized performance metrics) and the different insights they provide

- T. Reichler, V. Masson-Delmotte, K. Takahashi (5 min each)
- Discussion

14:45 Emergent constraints, what they are and what is their power

- P. Cox, D. Notz, C. Teichmann (5 min each)
- Discussion

16:00 COFFEE BREAK

16:20 Discussion on three themes discussed so far

17:00 ADJOURN

19:00: Working Dinner to continue discussion (Restaurant "Freischwimmer", walking distance from the MPI-M)

Friday, Feb 24

09:00 Bias correction, model weighting, and issues of model independence

- J. Murphy, R. Lorenz, (5 min each)
- Discussion

10:00 model tuning and how it might undermine aspects of model evaluation

- D. Williamson, T. Mauritzen, A. Sellar (5 min each)
- Discussion

11:00 COFFEE BREAK

11:30 Discussion: how do we connect 'model quality' as measured by past performance, to fitness-for-purpose, particularly for making predictions/projections of the future.

12:30 LUNCH

13:30 Discussion continues. Are there promising avenues/opportunities? Are there aspects of the current CMIP6 plan that will improve the situation in comparison to CMIP5? Are there gaps to fill or other initiatives that would be complementary?

15:00 Synthesis and Next steps

- Synthesis of meeting outcome by organizers, and discussion of key points and general outline of following two documents
 - o Short meeting report (to be done by organizing committee)
 - o Longer paper summarizing the discussion at this workshop and ideally making some suggestions that would be helpful to the climate research community and to the IPCC 6th Assessment.
- Identify those who would like to participate in the latter paper, their role, and a timeline.

16:00 ADJOURN

This workshop is kindly sponsored by the Intergovernmental Panel on Climate Change (IPCC), the World Climate Research Programme (WCRP), and the Max Planck Institute for Meteorology.