Joint IPCC-WCRP-IGBP Workshop: New Science Directions and Activities Relevant to the IPCC AR5

3-6 March, 2009
University of Hawaii, Honolulu, Hawaii Hosted by IPRC
sponsored by WCRP, IGBP, US National Science Foundation, Climate Central

Agenda

The workshop will be run like the IPCC model analysis workshop held in 2005. The format will be all posters, with a few invited overview plenary talks. Each of the seven half day sessions will start out with a panel of no more than 20 presenters in plenary, and each will present one slide (3 minute presentation) to introduce their main result. Then the rest of each half day session will be discussion around the posters in the same room. Workshop topic descriptions are given at the end of the agenda.

Tuesday, March 3, 2009

8:00AM Buses depart hotels for UH campus

8:30AM – 9:00AM: Registration

9:00AM – 9:15AM: Welcoming addresses (5 minutes each by representatives from IPRC, IPCC WG1)

9:15AM – 9:30AM: Purpose/objectives of workshop (Gerald Meehl)
9:30AM-9:45AM: Some lessons from the AR4 to AR5 (Susan Solomon)
9:45AM-10:00AM: Challenges of WGI to AR5 of IPCC (Thomas Stocker)

10:00AM ***Session 1: Observations (part 1)*** (session chair Gerald Meehl)

10:00AM – 11:000AM: Presenter Panel and short presentations (each 3 minutes/one slide)

11:00AM – 12:30PM: View/discuss posters (with coffee/refreshments provided)

12:30PM – 2:00PM: Lunch

2:00PM ***Session 2: Observations (part 2); Detection/attribution; Physical and biogeochemical feedbacks, forcing and climate sensitivity (part 1)*** (session chair Gerald Meehl)

2:00PM – 3:00PM: Presenter Panel and short presentations (each 3 minutes/one slide)

3:00PM – 4:30PM: View/discuss posters (with coffee/refreshments provided)

4:30-5:00PM: Plenary talk: Meeting Needs of Industry: How IPCC can help (Mack MacFarland)

5:00PM – 5:30PM: Plenary talk: IPCC and the policy community (Sir John Houghton)

5:30PM – 7:30PM: Reception

Wednesday, March 4, 2009

8:30AM Buses depart hotels for UH campus

9:00AM – 9:30AM: Plenary talk: CMIP5 coordinated experiments for assessment in the AR5 (Ron Stouffer)

9:30AM ***Session 3: Physical and biogeochemical feedbacks, forcing, and climate sensitivity (part 2)*** (session chair Thomas Stocker)

9:30AM – 10:30AM: Presenter Panel and short presentations (each 3 minutes/one slide)

10:30AM – 12:30PM: View/discuss posters (coffee/refreshments provided)

12:30PM – 2:00PM: Lunch

2:00PM ***Session 4: Physical and biogeochemical feedbacks, forcing and climate sensitivity (part 3); Cryosphere, sea level and hydrological cycle*** (session chair Thomas Stocker)

2:00PM – 3:00PM: Presenter Panel and short presentations (each 3 minutes/one slide)

3:00PM – 4:30PM: View/discuss posters (coffee/refreshments provided)

4:30PM-5:00PM: Plenary Talk: Predicting the sea-level contribution of the Greenland and Antarctic ice-sheets (Jonathan Gregory)

Thursday, March 5, 2009

8:30AM Buses depart hotels for UH campus

9:00AM ***Session 5: Extreme events and regional climate change (part 1)*** (session chair Ron Stouffer)

9:00AM – 10:00AM: Presenter Panel and short presentations (each 3 minutes/one slide)

10:00AM – Noon: View/discuss posters (coffee/refreshments provided)

Noon – 1:30PM: Lunch

1:30PM – 2:00PM: Plenary talk: Connecting WG1 and WG2 (Chris Field/Vicente Barros)

2:00PM ***Session 6: Extreme events and regional climate change (part 2); Decadal prediction and climate variability*** (session chair Ron Stouffer)

2:00PM – 3:00PM: Presenter Panel and short presentations (each 3 minutes/one slide)

3:00PM – 5:00PM: View/discuss posters (coffee/refreshments provided)

5:00-5:30PM: From NWP to Climate Projections (Brian Hoskins)

Friday, March 6, 2009

8:30AM Buses depart hotels for UH campus

9:00AM ***Session 7: Model evaluation and ensembles*** (session chair Susan Solomon)

9:00AM – 10:00AM: Presenter Panel and short presentations (each 3 minutes/one slide)

10:00AM – Noon: View/discuss posters (coffee/refreshments provided)

Noon – 1:00PM: IPCC Assessments of the Physical Climate System: A view from the past to the future (John Houghton, Susan Solomon and Thomas Stocker)

1:00PM: Adjourn workshop

Workshop topic descriptions:

Observations: Observations of changes in the climate system up to 2008, including updates on data corrections and homogenization from various data sources from climate system components atmosphere, ocean, biosphere, and chemosphere. Of special interest is the evolution of rates of changes.

Detection/attribution: Detection/Attribution (D/A) beyond surface temperature and large-scale fields. In particular recent progress in D/A of changes in precipitation, regional patterns, ocean quantities, climate modes, and in the vertical structure of physical quantities. In this session we also encourage contributions of research at the interfaces between D/A, policy decisions, and scenario development.

Physical and biogeochemical feedbacks, forcing, and climate sensitivity: Further constraining radiative forcing, including aerosol-black carbon. Latest results on carbon cycle-climate feedbacks, feedbacks associated with land use change and dynamic vegetation responses. New results on climate sensitivity including excluding low sensitivities and better constraining large sensitivities.

Cryosphere, sea level, and hydrological cycle*:* Latest results on the physics of ice sheet instabilities in Greenland and Antarctica and their sensitivity to warming and implications on sea level rise. Understanding sea ice response, including possible rapid changes and associated feedback mechanisms, regional changes in snow cover and glacier extent and their consequences on the regional water regimes. New research on changes in the large-scale water cycle, regional freshwater balance.

Extreme events and regional climate change: Observation, statistics, D/A, and projection of extreme events, including regional extremes, tropical cyclones, drought, floods, heat waves, regionally-specific climate change.

Decadal prediction and climate variability*:* Progress in narrowing the gap between decadal prediction and global climate projection. Better understanding the response of climate modes such ENSO, PDO, NAO, AO and AMO to an increase in radiative forcing. Focus on changes in monsoon.

Model evaluation and ensembles: New progress in the quantitative evaluation of comprehensive climate models (Bayesian, ranking, indices, etc.) and their combination into multi-model means. Methodologies of defining metrics for potential use in AR5. Including observations and paleoclimate information for model evaluation. Physics tests, multi-member single model, multi-model, stochastic-dynamic parameterization,