U.S. CLIVAR Climate Variability & Predictability

September 2011 U.S. CLIVAR News-gram

Please forward to interested colleagues. If you have announcements to include in our next issue or if you would like to be removed from the news-gram email list please email Cathy Stephens in the U.S. CLIVAR Office (<u>cstephens@usclivar.org</u>).

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Calendar of Upcoming Events

(for more information-www.usclivar.org/calendar.html)

September

12-14: CLIVAR Working Group on Seasonal-to-Interannual Prediction (Trieste, Italy)

19-23: ICES Annual Conference (Gdansk, Poland)

24-27: 3rd Symposium on the Ocean in a High CO₂ World (Monterey, CA)

27-29: SAMOC4 Meeting (Simons Town, South Africa)

October

19-21: CLIVAR Working Group on Coupled Modeling (Boulder, CO)

19-21: CLIVAR/CliC/SCAR Southern Ocean Panel (Boulder, CO)

24-28: WCRP Open Science Conference (Denver, CO)

November

8-11: International Conference on Energy and Meteorology (Gold Coast, Australia)

29 – 2 December: Earth Observation for Ocean-Atmosphere Interactions (Frascati, Italy)

Announcements

1. Calls for U.S. CLIVAR Working Group and Joint U.S. CLIVAR/Ocean Carbon and Biogeochemistry Working Group Prospectuses

Two separate calls are issued inviting prospectuses for (1) new U.S. CLIVAR Working Groups and (2) Joint U.S. CLIVAR/Ocean Carbon and Biogeochemistry (OCB) Working Groups.

Prospectus requirements are provided in the calls. Submission deadline is October 3, 2011. See usclivar.org for further details.

2. APPOSITE Project (Arctic Predictability and Prediction on Seasonal-To-Interannual Timescales)

The main scientific goals of APPOSITE are to quantify the predictability of the Arctic environment on seasonal to inter-annual timescales, and provide recommendations on required developments in operational prediction systems. The key questions to address are:

- What are the most important physical processes that determine the predictability of Arctic climate, including Arctic sea-ice, on seasonal to inter-annual timescales?
- What is the relative importance of ocean and sea-ice initial conditions, and of sea-ice thickness versus sea-ice cover?
- o How does predictability vary seasonally and with the state of the climate system?
- To what extent, and through what mechanisms, does the Arctic influence the predictability of the wider climate system?
- To what extent do different climate models capture similar processes and levels of predictability for the Arctic?

Ensemble generation:

Initial ensembles will be run with perturbations only to the atmospheric state (e.g. by using subsequent days in the control). Extensions would include additional ensembles using additional perturbations to sea ice thickness and the ocean state.

Aim: to determine the relative importance of sea ice and ocean initialisation

Case studies: (in addition to core set)

Extra ensembles will be run to explore the predictability of extreme 'events' in each model. These simulations could be performed with higher resolution models than the core set. Process: select a number of extreme seasons of sea-ice extent and/or sea-ice thickness in each model start 8+ member ensembles 3, 6 & 9 months, and 1, 2 years before the extreme season run each ensemble until the extreme season, i.e. for 3 months to 2 years Aim: to determine the lead-time dependence of predictability of very low/high sea-ice states.

Comments welcome! Contact: Dr Ed Hawkins (<u>e.hawkins@reading.ac.uk</u>) BLOG:www.met.reading.ac.uk/~ed/blog/

3. TRACE Workshop Report now available

The April 2011 Terrestrial Regional North American Hydroclimate Experiment (TRACE) Workshop Report and Brochure have been posted at www.trace-rhp.org. Follow-on actions to be planned will involve briefings to potential funding agencies and the scientific community. A TRACE Steering Group will be established over the coming months to develop an implementation strategy and plan. Comments on the report and brochure provided to rschiffer@usra.edu, drbelvedere@gmail.com or gewex@gewex.org will be summarized and posted.

Meetings and Workshops

1. WCRP Open Science Conference Denver, Colorado 24-28 October 2011

The program for the WCRP Open Science Conference is now available online. To see the collection of parallel session abstracts: http://www.wcrp-climate.org/conference2011/parallel.html

To view the poster session abstracts: http://www.wcrp-climate.org/conference2011/posters.html

2. 92nd Annual AMS Meeting New Orleans, Louisiana 22-26 January 2012

The theme of the 2012 AMS Annual Meeting is "Technology in Research and Operations—How We Got Here and Where We're Going." For more information: http://annual.ametsoc.org/2012/

3. 2012 Ocean Sciences Meeting Salt Lake City, UT 20-24 February 2012

Deadline for abstract submission is 7 October 2011. For more information see http://www.sgmeet.com/osm2012/

The organizers of the following session at the meeting welcome participation. 068: Air-Sea Interactions in Western Boundary Current Systems and Marginal Seas This session focuses on extratropical air-sea interactions in western boundary current systems and marginal seas, where large amounts of heat and moisture are supplied from the ocean to the atmosphere. Particular emphasis is placed on atmospheric and oceanic processes within these "hot spots", occurring over a wide range of spatial and temporal scales, that may play a role in the climate system and its variability. Contributions for oral and poster presentations based on diagnostic, modeling (either realistic or idealized) and theoretical studies are invited on a range of topics including, but not limited to, processes affecting the oceanic fronts and distribution of heat within the western boundary current systems and marginal seas; the influence of warm and cool ocean currents and associated oceanic fontal zones on wind distribution, cloud formation, organization of precipitation systems, cyclone development, formation of storm tracks and jet streams; their variability and modulations on interannual and decadal scales; atmospheric feedbacks/influences on ocean currents/jets, and their interactions with meso-scale eddies, mode water formation, and marine ecosystems. Contributions on processes and phenomena that characterize air-sea interactions over the marginal seas are also invited, including studies of their interactions with the open oceans, sea-ice formation, and the strong seasonality associated with bathymetric effects, continental atmospheric processes and river discharge.

Position Announcement

1. Post-doctorate position on numerical modeling of climate change (Brazil)

Assessment of Impacts and Vulnerability to Climate Change in Brazil and Strategies for Adaptation Options

Principal investigator: José A. Marengo

Institution: Earth System Science Center CCST/ Instituto Nacional de Pesquisas Espaciais

The project offers a post-doctorate two-year position at INPE (National Institute for Space Research) in Cachoeira Paulista, Sao Paulo, to carry out research on regional climate modelling over South America using the Eta Model. One of the objectives of the project is the enhancement of understanding of the impacts of climate change and identifies the main regions potentially to be affected by climate change and the vulnerabilities of their populations in Brazil in the following sectors and systems: water resources, social aspects, weather related natural disasters and mega cities.

The candidates should have experience on atmospheric modeling (model development as performing runs and tests). The work will focus on the study of climate change over South America imposed by the IPCC and other global climate model future scenarios using the Eta Model - climate change version. The work will consist of high resolution Eta Model multi-decadal runs and include analyses of mean and extreme conditions in the present and future climates. Further information on the project can be found at http://www.ccst.inpe.br/ClimateChange_Fapesp

The candidates should send Curriculum Vitae, letters from two referees and a letter explaining the candidate's interest in climate modelling research. These documents should be in PDF to Jose Marengo (jose.marengo@inpe.br). The current scholarship is R\$ 5.028,00, (about US \$ 3125) free of taxes. The candidates will be contacted for interview, which can be personally or through Skype. Duration of the fellowship is 24 months.