



## **Climate Prediction to 2030: Is it possible, what are the scientific issues, and how would those predictions be used?**

June 22-28, 2008

*Organizing committee: Gerald A. Meehl, Ronald J. Stouffer, Lisa Goddard, James Murphy*

### **SESSION DESCRIPTION**

A compelling issue that emerged from the IPCC AR4 in 2007 was the interest in “short term” climate projections out to about 2030. This is a time frame of interest for many decision support activities and impacts, but is not explicitly addressed with current models and experiments. Any short term climate information currently provided is simply taken from relatively coarse grid global coupled climate models in the early stages of 21<sup>st</sup> century simulations that began in the late 1800s and are run to 2100 and beyond. While this provides some information regarding the response of the climate system to external forcing on near-term time scales, it has recently been recognized that a different type of experiment using models with higher spatial resolution and possibly an observed initial state could provide better regional climate change information for decision support and other applications over the next few decades.

An AGCI session in the summer of 2006 first proposed an experimental design for the next round of coordinated climate change experiments that explicitly included short-term climate predictions to be performed for assessment by the international climate modeling community. Since then this has been taken up by WCRP, IGBP and the IPCC, with CLIVAR targeting decadal prediction as the next big research challenge for the climate modeling community.

The AGCI session in 2008 will take up where the 2006 session left off, and carry this concept to the next level by tackling not only the formidable science issues involved with designing and running short term climate projections (now more commonly referred to as “decadal prediction”). The session will also address the important issues of the utility and applications of this information for decision support and impacts research. We seek to invite U.S. and international experts from modeling groups currently doing research in decadal prediction, as well as representatives from the decision support and impacts communities who would use this information. Proposed output from this session would be a white paper and possible journal article summarizing our current state of knowledge on decadal prediction, the degree of success one could expect from such experiments, possible solutions to the scientific challenges involved with this problem, and an assessment of how this type of climate change information over could be used for decision support and impacts analyses the next few decades.