BROWN-BAG PRESENTATION

Exploring Theory and Application of Regional Climate Downscaling

Tuesday, September 15, 2015

10am - noon
John A. Burns Hall, Room 3012 (3rd floor)

Making Better use of Climate Model Output: Recent Progress along the Continuum of Downscaling Complexity

by *Ethan Gutmann, Research Applications Lab, National Center for Atmospheric Research*

Climate models provide a rich set of information for use in studying the climate system and its possible evolution; however, they cannot provide perfect information. To compensate for these imperfections, numerous methods of bias correcting and downscaling climate models have been developed ranging from simple rescaling methods to complex regional climate models. We explore the results obtained from methods spanning the range of complexity, and discuss how physical insights can inform our use, selection, and development of such methods.

Revealing and Reducing Uncertainties in Climate Impact Assessments

by *Martyn Clark, Research Applications Lab, National Center for Atmospheric Research*

Common approaches to climate change assessments in the water sector are affected by substantial uncertainties in climate downscaling and hydrologic modeling. We present research to improve characterization of uncertainty, in order to reduce the extent to which the portrayal of climate change impacts depends on ad hoc methodological choices. We hope that this presentation stimulates discussion on ways to improve the robustness of water resources planning under a changing climate.

Choosing and Using Climate Scenarios in Alaska: Implications of "Data Sparse" for Climate Services

by *Jeremy Littell, USGS, DOI Alaska Climate Science Center*

Downscaled climate model output is often thought of as necessary - even requisite - for climate change impacts and vulnerability assessments. The characterization of uncertainty in impacts models compared to that inherent in downscaled climate information is a key indicator of how useful projected resources conditions really are. In Alaska, the 'library' of climate change scenarios at scales considered by many to be "resource relevant" is severely limited compared to the lower 48 states, and there are unique challenges associated with uncertainty characterization and model output application. I will discuss these challenges and show some "work arounds" we have employed in our attempts to continue to produce and interpret climate information useful to and used by our partners.

When it is time to attend the meeting, please visit this link:
https://usgs.webex.com/usgs/j.php?MTID=m9cd3429718211612d8b99881feda135c
Teleconference: For the audio bridge, dial 855.547.8255 plus 71487#