

Meeting of the AGU Technical Committee on Precipitation

Wednesday, Dec. 17, 2008, 06:45 – 7:45AM
Room Pacific J at the Marriott Hotel (breakfast/coffee available)

Participants

Sankar Arumugam, Yang Hong, Rick Lawford, Shaun Lovejoy, Ana Nunes, John Schaake, Daniel Schertzer, Scott Curtis, Paul Kulera, and J.J. Gourley

AGU Meeting Session Planning

Approved sessions for AGU Spring 2009 Joint Assembly, 24-27 May, Toronto, Canada [see text at end of agenda]

- 1) General Session on Precipitation
- 2) Remote Sensing and Modeling of Hydrometeorologic Extreme and Hazardous Events
(see <http://www.agu.org/meetings/ja09/>) and abstract submission is open.

Potential special sessions for AGU Fall Meeting, 2009, San Francisco, California

- 1) John Schakke (looking for co-conveners), Data Assimilation session relevant to The Hydrologic Ensemble Prediction EXperiment (HEPEX) <http://hydis8.eng.uci.edu/hepex/>
- 2) Yang Hong (looking for co-conveners): The progress and status of Multi-sensor QPE (gauge/radar/satellite)

Important dates for AGU Meeting

- 1) 4th March 2009 – Abstract submission for 2009 Spring Meeting
- 2) Early-June 2009 – Submission of session proposals for 2009 Fall Meeting
- 3) Early-September 2009 – Abstract submission for 2009 Fall Meeting

Precipitation Committee

- 1) Welcome our new committee member: J.J. Gourley from NOAA/NSSL and Paul Kucera from UCAR/RAL
- 2) Li-Chuan Chen (Li-Chuan.Chen@noaa.gov) from the NOAA/NWS will update the precipitation committee website quarterly (<http://www.iuhr.uiowa.edu/~precip/index.htm>)
- 3) To draft a white paper to outline version of Precipitation Technique Committee
- 4) Ana Nunes reported the AGU Hydrology Section Committee Chair meeting
- 5) Encourage more young scientists to participate the precipitation committee

General Discussion Topics

Precipitation-related conferences, programs or field experiments:

- 1) Precipitation variability and water resources (see call below) during the next Joint IAHS & IAH International Convention, Hyderabad, 6-12 September 2009 <http://www.iahs.info>; Abstract submission - May 31, 2009, Acceptance of Abstract - June 30, 2009.

Session abstract: In close relationship with the general theme of IAHS on water resources under stress, this workshop focuses on quantifying the variability of precipitation and precipitation surrogates over wide ranges of space-time scales, including the nature of precipitation extremes, non-stationarities, and uncertainties. This requires to discuss new observational and data processing techniques for in-situ networks and/or for remote sensing, new modelling approaches, including climatological/meteorological models, rainfall stochastic and/or scaling models, as well as to better confront models to data. A particular attention will be paid to the various space-time scales that are involved and techniques that allow to observe, analyse and simulate across scales. Conveners:

Daniel Schertzer (France),
Shaun Lovejoy (Canada)
Nityanand Singh (India)
Eric A. Smith (USA)

- 2) HEPEX meeting, June 15-19 2009 (need John Schakke's confirmation on where)
- 3) GEWEX **Sixth International Scientific Conference on the Global Energy and Water Cycle** (<http://www.gewex.org/>): Water in a Changing Climate, Melbourne, Australia 24-28 August 2009. Abstracts are now being accepted.

Appendix

2009 Joint Assembly Sessions Sponsored by our committee

1) General Session on Precipitation

Precipitation is a very important meteorological parameter that strongly affects (and sometimes controls) many human activities. Numerous hydrologic applications demand accurate precipitation measurements (i.e. by in situ instruments) or quantitative estimates (i.e. by remote sensors), and there is an increasing demand for accurate precipitation forecasts from numerical weather prediction models. This session will host papers on all aspects of precipitation, with emphasis on measurements (ground-based in situ sensors, estimation of accuracy of measurements, comparison of measuring instrumentation), estimation (methodologies used for the estimation, validation, and assessment of error and uncertainty of precipitation as measured by remote sensors), space-time variability (spatial pattern and temporal dynamics of precipitation using stochastic methods and/or nonlinear dynamics based on datasets derived from remote sensing, field experiments and numerical simulations), hydrologic applications of the estimates (use of remotely-sensed precipitation estimates in hydrological applications such as rainfall-runoff modeling, flash-flood forecasting, flood warning and monitoring, modeling and analysis of urban drainage systems, and propagation of precipitation estimation uncertainties into hydrologic predictions), and forecasting (quantitative precipitation forecasts from numerical weather prediction models, probabilistic approaches, verification of precipitation forecasts using different techniques, quantitative

precipitation forecasting with radar data and validation, experimental model studies on precipitation forecasting).

Conveners:

Amitai, Eyal NASA/GSFC & George Mason University

Gebremichael, Mekonnen Civil and Env. Engineering, University of Connecticut

Habib, Emad Department of Civil Engineering, The University of Louisiana at Lafayette

Testik, Firat Y. Civil Engineering Dept., Clemson University

2) Remote Sensing and Modeling of Hydrometeorologic Extreme and Hazardous Events

Are extreme events in components of the water and energy cycles intensifying as a result of global, regional, local climate, or environmental change? This session seeks contributions from the research, operational, and user communities that address various applications of remote sensing observations and modeling for hydrometeorological extremes and hazards study in order to improve our understanding of the nature of extreme and catastrophic weather and hydrological phenomena, as well as development of advanced methods for their monitoring and forecasting. Another aspect of this session is reduction of vulnerability of socio-economic and engineering systems to Extreme Hydrometeorological Events and decreasing the degree of impact upon these systems. Solutions to these problems require further refinement of existing methods for Extremes prediction through better modeling of the generation mechanisms and the use of remote sensing observations.

This session welcomes general contributions to monitor or predict weather and hydrometeorological extremes, including natural disasters (flood, drought, landslides, tornado, and hurricanes, etc.), derived from in-situ, remote sensing observations, or from modeling (simulation/prediction) at global, regional, and local scales.

Conveners:

Yang Hong, School of Civil Engineering and Environmental Sciences, University of Oklahoma

J. Gourley, NOAA/National Severe Storms Laboratory

Scott Curtis, East Carolina University