

## Statisticians Explore Issues Relating to Climate and Climate Change at the Joint Statistical Meetings in Vancouver

**ALEXANDRIA, VA (PRWEB) JULY 25, 2010** --- At the Joint Statistical Meetings (JSM) in Vancouver, BC, statisticians will discuss the implications of climate change the American Statistical Association (ASA) said today. JSM, the world's largest annual gathering of statisticians, will be held at the Vancouver Convention Centre July 31—August 5.

Participants in JSM roundtables and other sessions include statisticians from Simon Fraser University, the Ministry of Forests and Range, the Norwegian Computing Center, the Swiss Federal Research Institute, University of Toronto, Agriculture and Agri-Food Canada, Harvard University, the SAS Institute, and may other non-profit institutes, and colleges and universities. Sessions are organized in two-hour timeframes, with several presentations of about 15 minutes, followed by Q&A.

**\*\*\*Note: Members of the press can register to attend any of the conference sessions online at <http://www.amstat.org/meetings/jsm/2010/index.cfm?fuseaction=pressregistration>. \*\*\***

Some of the JSM sessions focusing on climate are described below; additional sessions on this and many other subjects can be found via the JSM online program, where you can search on keywords, date, type of program, activity number, presenter's name or affiliation. Link to the program: <http://www.amstat.org/meetings/jsm/2010/onlineprogram/index.cfm?fuseaction=main>.

### **Combining Climate Models to Weather Data – Activity #297, Roundtable with Lunch**

**Presenter:** *Peter Guttorp, University of Washington/Norwegian Computing Center*

Climate models do not predict weather. Rather, they predict the distribution of weather. Often climate is described as average weather, but it is really much more than that. Climate models also must describe extremes. In this roundtable we will discuss how, from a statistical point of view, one can compare climate models to data, and what data are appropriate for such comparisons.

[http://www.amstat.org/meetings/jsm/2010/onlineprogram/index.cfm?fuseaction=abstract\\_details&abstractid=308070](http://www.amstat.org/meetings/jsm/2010/onlineprogram/index.cfm?fuseaction=abstract_details&abstractid=308070)

### **Analysis of Global Warming Data: A Contrarian Data-Based View – Activity #486**

**Presenter:** *Edward J. Wegman, George Mason University*

The so-called Hockey Stick paleoclimate temperature reconstruction was a major feature of the Intergovernmental Panel on Climate Change (IPCC) 2003 Third Assessment Report. Drs. David Scott, Yasmin Said and Wegman were asked to assemble a report to the House Committee on Energy and Commerce concerning the mathematical correctness of the principal components procedure that was used to develop the Hockey Stick. The principal components procedure was not done correctly and both empirical and theoretical analysis showed the flaws. While our testimony was limited to the statistical validity of this particular graphic, it was assumed by many and widely reported in the press that we were arguing against anthropogenic-induced global warming. Indeed, politically motivated personal attacks were made. This talk will review the data issues and report on our experiences.

[http://www.amstat.org/meetings/jsm/2010/onlineprogram/index.cfm?fuseaction=abstract\\_details&abstractid=306224](http://www.amstat.org/meetings/jsm/2010/onlineprogram/index.cfm?fuseaction=abstract_details&abstractid=306224)

### **Functional Data Analysis of the Trends and Predictors of Climate in British Columbia – Activity #294**

**Presenters:** *Simon Joseph Bonner and Nancy Heckman, University of British Columbia; Nathaniel Kenneth Newlands and Budong Qian, Agri-Food Canada and Agriculture*

Weather data are inherently noisy: temperature and precipitation levels vary greatly day-to-day and this may hide longer-term (monthly or seasonal) trends. Data collection may also be inconsistent, and strong correlations exist between the observations from nearby sites. For these reasons, standard multivariate methods are difficult to apply and often identify extreme events as the major sources of variation over space and time. We apply functional data methods and hierarchical Bayesian modeling to analyze historical weather data from more than 1500 sites across British Columbia and to study the effects of space, time, and global teleconnections on the yearly trends of temperature and precipitation. Results from this work will be used to model future changes in weather patterns across BC and to understand the possible effects of climate change on the province's agriculture industry.

[http://www.amstat.org/meetings/jsm/2010/onlineprogram/index.cfm?fuseaction=abstract\\_details&abstractid=308179](http://www.amstat.org/meetings/jsm/2010/onlineprogram/index.cfm?fuseaction=abstract_details&abstractid=308179)

### **Response of Canadian Crop Yields to Climate Change – Activity #352**

**Presenters:** *Rosalind Beuckert, University of Saskatchewan; Adam Jaeger and Lynne Seymour, The University of Georgia*

Using the most detailed data yet compiled for any region of the world, we investigate the response to climate change for yields of 15 food crops grown in Alberta, Saskatchewan and Manitoba. Both spatial and temporal correlations are addressed in the model. Results indicate that, at least for some of these food crops, yields are decreasing as the Canadian climate changes.

[http://www.amstat.org/meetings/jsm/2010/onlineprogram/index.cfm?fuseaction=abstract\\_details&abstractid=308418](http://www.amstat.org/meetings/jsm/2010/onlineprogram/index.cfm?fuseaction=abstract_details&abstractid=308418)

### **How Does Unusual Local Weather Affect Public Opinion About Climate Change? – Activity #191**

**Presenters:** *Bin Liu, Iowa State University*

Previous evidence has shown that people of different ages may respond differently to a weather survey in unreasonable local temperature conditions. Liu uses data from eight CBS News surveys from 2001 to 2007 to show that the temperature change can affect the response results.

[http://www.amstat.org/meetings/jsm/2010/onlineprogram/index.cfm?fuseaction=abstract\\_details&abstractid=308337](http://www.amstat.org/meetings/jsm/2010/onlineprogram/index.cfm?fuseaction=abstract_details&abstractid=308337)

### **About the Joint Statistical Meetings**

JSM, which has been held annually since 1974, is conducted jointly with the American Statistical Association (ASA), the International Biometric Society (ENAR and WNAR), the Institute of Mathematical Statistics (IMS), the Statistical Society of Canada (SSC), the International Chinese Statistical Association, and the International Indian Statistical Association. JSM activities include oral presentations, panel sessions, poster presentations, continuing education courses, exhibit hall (with state-of-the-art statistical products and opportunities), career placement service, society and section business meetings, committee meetings, social activities, and networking opportunities. JSM is open to members of all participating associations, as well as non-members and has special pricing for students, seniors, K-12 teachers; one-day registrations also are available. Complete JSM program information is available at

<http://www.amstat.org/meetings/jsm/2010/index.cfm>.

### **About the American Statistical Association**

Headquartered in Alexandria, Virginia, the American Statistical Association is the world's largest community of statisticians and the second oldest continuously operating professional society in the United States. For 170 years, the ASA has supported excellence in the development, application, and dissemination of statistical science through meetings, publications, membership services, education, accreditation, and advocacy. Its members serve in industry, government, and academia in more than 90 countries, advancing research and promoting sound statistical practice to inform public policy and improve human welfare. For additional information about the American Statistical Association, please visit the ASA web site at <http://www.amstat.org> or call 703.684.1221.

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