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Solar Radiation and Climate Experiment Monthly Newsletter

August 2005

2005 SORCE Science Meeting Final Agenda –

Pre-Registration deadline extended to Sept. 2

There is still time to join the 2005 SORCE Science Meeting – *Paleo Connections Between the Sun, Climate, and Culture.* The pre-registration deadline (discounted fee of \$160) has been extended to Friday, **September 2.**

The meeting is September 14-16 in Durango, Colorado and full details are available at:

http://lasp.colorado.edu/sorce/2005ScienceMeeting/. The science program description, full agenda, abstracts, special event information, on-line registration forms, as well as logistical information is available on the website.

Final Meeting Agenda (as of 8/22/05)

Tuesday, Sept. 13

1:30 p.m. Special Session for Gary Rottman Everyone is welcome to attend! Speakers include:

- ► George Mount, Washington State University, Pullman
- ▶ Jim Klimchuk, Naval Research Lab, Washington, DC
- ► Don Hassler, Southwest Research Institute, Boulder, Colorado
- ► Lika Guhathakurta, NASA Headquarters, Washington, DC
- ► Skip Reber, NASA GSFC, Greenbelt, Maryland
- ▶ Bob Cahalan, NASA GSFC, Greenbelt, Maryland

5:30 p.m. Welcoming Reception

Wednesday, Sept. 14

8:30 a.m. Welcome/Keynote Talk

Judith Lean -- Navel Research Lab, Washington, DC *Secular Change in the Sun-Earth System*

Session 1. SORCE Observations of Solar Radiation – New Science Results

- ► Gary Rottman, Overview of the SORCE Mission
- ► Greg Kopp, Total Irradiance Monitor (TIM): New Results for TSI
- ► Jerry Harder, Solar Spectral Irradiance Variability Comparisons of the SORCE SIM Instrument with Monitors of Solar Activity and Spectral Synthesis
- ► Bill McClintock, Solar Variability in the Ultraviolet SORCE SOLSTICE Observations



Aspen trees in the fall outside of Durango.

- ► Tom Woods, Flare Variability of the Solar XUV Irradiance from the SORCE XPS
- ► Rodney Viereck, NOAA Observations of Solar Irradiance
- ► Jim Butler, TSI Validation

Session 2. Reconstructions of Past Solar Irradiance and Modeled Climate Responses

- ► Natalie Krivova, Irradiance Reconstructions Evolution of Sources
- ► Sami Solanki, Past Levels of Solar Activity and Irradiance
- ► Caspar Ammann, Isolating a Solar Fingerprint in Climate of the Last Millennium
- ▶ **Drew Shindell,** Present Day and Historical Response to Solar Forcing in the Fully Coupled Chemistry-Climate GISS ModelE
- ► Kunihiko Kodera, Solar Influence on Troposphere through Stratospheric Dynamical Processes
- ► Katja Matthes, Solar Induced Stratospheric Effects

4:00 p.m. Poster Sessions/Reception

Poster Session 1. Solar Variability

► Aden & Marjorie Meinel, Connecting Inferred Solar Microvariability over the Past 200ky with Observed

Microvariability of 582 Solar-Class Stars from the ESA Hipparcos Program

- ► Eun-Hee Lee, On the Duration of the Spöerer Minimum
- ▶ Phil Judge, What was the Probable State of the Solar Chromosphere and Corona during the Maunder Minimum?
- ► **Jeffrey Hall,** Cyclic and Secular Activity Changes in Solar Analog Stars
- ▶ Peter Fox, Variability and Redundancy across the Solar Spectrum
- ▶ Juan Fontenla, Spectral Irradiance Modeling and Long-Term Trends
- ▶ David Dunham, Accuracy of Solar Radius Determinations from Solar Eclipse Observations, and Comparison with SDS and SOHO Data
- ► Rock Bush, Observing the Solar Photosphere from Space using the MDI and HMI Instruments
- ► Guoyong Wen, Empirical Orthogonal Function Analysis of Observed and Modeled Solar Spectral Irradiances
- ► Larry Puga, The NOAA MgII Core-to-Wing Ratio
- ► Marty Snow, SORCE SOLSTICE High-Time Cadence Magnesium II Observations
- ► Marty Snow, Absolute Calibration of SORCE SOLSTICE
- ► Chris Pankratz, SORCE Data Processing and Data Products

Poster Session 2. Sun-Climate

- ▶ Dan Yeloff, The Fossil Record of UV-B in Juncus Seeds and the Relation with Climate Change
- ► E. J. Zita, A Model for Investigating Sun-Climate Questions
- ▶ BaiMing, Climate Change and the Expansion of the Northeast China Culture after 960 BC
- ▶ David Gregory, Solar Variability, Climate, and Human Response: A view from the Southwest
- ▶ Ming Chen, A Climatological Spectral Study for Diagnosing the Solar 11-Year Signal in the Northern Hemisphere Atmosphere
- ► Saumitra Mukherjee, Cosmic Influence on Environment of the Earth
- ▶ Aden & Marjorie Meinel, Connecting the Inverse Correlation between 10Be and GRIP Temperature and Snowfall Accumulation over the Past 200 Ky with Relevance to the Variation of 10Be during the past 80 Ky and to the 40-Ky BP Surge





Although never completed, Sun Temple in Mesa Verde National Park reflects a great construction effort by the people who once lived there. In the SW corner is an eroded stone with three small indentations that may have served as a sun dial to mark the change of seasons.

Thursday, Sept. 15 8:30 a.m. Keynote Talk

Peter deMenocal – Lamont-Doherty Earth Observatory, Columbia University, New York

Late Holocene Variability of Atlantic Surface and Deep Ocean Circulation: Amplitudes and Cultural Impacts

Session 3. Evidence for Climate Response to Solar Variability

- ► Harry van Loon, A Probable Influence in the Pacific Ocean of the Decadal Solar Oscillation
- ► Curt Stager, Solar Variability and Rainfall at Lake Victoria, East Africa, During the Last Millennium
- ► Subarna Bhattacharyya, Evidence for Strong Links between Indian Rainfall and Solar Activity
- ► Ashish Sinha, Possible Solar Forcing of Late Holocene Mega-Droughts in India
- ► Paul Mayewski, Solar Forcing of the Polar Atmosphere
- ► Charles Perry, Solar Activity, Ocean/Atmospheric Processes, and Mississippi River Flow
- ▶ Alexander Ruzmaikin, Signals from the Nile River
- ► David Lund, Gulf Stream Salinity Variability during the Last Millennium

Session 4. Interpreting the Solar and Climate Sources of Cosmogenic Isotope Variations, and their Relationship to Solar Irradiance

- ► Monika Korte, Long-Term Changes in the Geomagnetic Field
- ► Catherine Constable, Prospects for Resolving Shortterm Variations in the Paleomagnetic Dipole Moment
- ► Horst Fichtner, Cosmic Ray Modulation and its Significance for Extraterrestrial Climate Driving
- ► Raimund Muscheler, Solar Sources of Cosmogenic Isotope Variations

► Christy Field, Climate and Production-Related Impacts on Beryllium-10

5:00 p.m. Center of Southwest Studies Tour and Reception

7:30 p.m. Science Dinner, Strater Hotel

Dr. Mark Varien – Crow Canyon Archeological Center, Cortez, Colorado

Modeling of Historical Facility System Contunio

Modeling of Historical Ecology – Seven Centuries of Pueblo Indian Settlement in the Mesa Verde Region

Friday, Sept. 16

8:30 a.m. Talk in honor of Gerard Bond

Scott Lehman – University of Colorado, Boulder Response of Norwegian Sea Surface and Air Temperature to Solar Forcing; A Tribute to the "Persistence" of Gerard Bond

Session 5: Linkages of Climate Cultural Responses and Solar Variability

- ▶ Ray Bradley, Has Solar Forcing Been an Important Influence on Climate in the Late Holocene?
- ▶ Bas van Geel, The Sun, Climate Change and the Expansion of the Scythians after 850 BC
- ► Sultan Hameed, Prolonged Drought in Northern China During the Maunder Minimum and Its Relation to Peasant Rebellions and Fall of the Ming Dynasty
- ► Connie Woodhouse, Impacts of Drought: Water Resources in the Colorado River Basin
- ▶ Joan Feynman, Solar Forcing, Climate Change and the Invention of Agriculture

11:30 a.m. Meeting Overview

12:00 noon Adjourn

1:30 p.m. Mesa Verde Tour departs

132,702

Hits to the SORCE Website (Since 4/21/03, As of 8/19/05)



Upcoming Meetings / Talks – SORCE scientists plan to present papers or attend the following 2005 meetings:

IAMAS 9th Scientific Assembly, August 2-11, Beijing, China

Characterization and Radiometric Calibration for Remote Sensing, August 23-25, Logan, Utah

SORCE Science Meeting, September 14-16, Durango, Colorado

NASA Solar and Space Physics and the Vision for Space Exploration Conference, October 16-20, Wintergreen, Virginia

NEWRAD 2005: 9th International Conference on New Developments and Applications in Optical Radiometry, October 17-19, Davos, Switzerland

AGU Fall Meeting, Dec. 5-9, San Francisco, California

To submit information to this newsletter, please contact: vanessa.george@ lasp.colorado.edu.