# **SNS** • SORCE News Source



# **Solar Radiation and Climate Experiment Monthly Newsletter**

#### **Dec. 2007**

SORCE Science Meeting –

"SORCE's Past, Present, and Future Role in Earth Science Research"

Feb. 5-7, 2008 Santa Fe, New Mexico

It is not too late to register and attend this great meeting! Visit the SORCE Meeting website to see the final science program and all of the abstracts. The agenda consists of invited and contributed oral and poster presentations concerning variations in the Sun's



radiation and in the Earth environment. http://lasp.colorado.edu/sorce/2008SciMeeting.

> Hotel/Registration Due: Jan. 4, 2008 Yikes – that is Friday!

Call La Posada at 505-954-9686 today for the SORCE group rate!

# **SORCE Meeting Science Program**

<u>Monday, February 4</u> 5:30 p.m. Welcome Reception

Tuesday, February 5, morning

Session 1. <u>Variability of the Solar Irradiance</u> <u>Over the Solar Cycle</u>

**Tom Woods (Keynote),** LASP, University of Colorado What We've Learned from SORCE – Solar Cycle Maximum to Minimum

**Judith Lean (Invited),** NRL, Washington, DC Comparison of Solar Irradiance Variability Models with SORCE Observations **Greg Kopp** (**Invited**), LASP, Univ. of Colorado *The History and Future of TSI and SSI Measurements* 

**Gérard Thuillier (Invited),** Service d'Aéronomie du CNRS, France

Space Station SOLSPEC Investigations: Measurements of the Absolute Spectral Irradiance from 165 to 3080 nm On-Board SOLAR

**Steven Dewitte,** Royal Meteorological Institute of Belgium Measured Total Solar Irradiance Cycle Variability: Status at the End of Cycle 23

**Claus Fröhlich,** Physikalisch-Meteorologisches Observatorium Davos, Switzerland *TSI Variation: What can we Learn from the Last Three Solar Cycles?* 

Gary Chapman (Invited), San Fernando Observatory, CSU Long-Term Ground-Based TSI Measurements

#### Tuesday, February 5, afternoon

Alexander Ruzmaikin, JPL, Cal. Inst. of Technology Solar Irradiance: Modes of Variation

Matt DeLand, SSAI, Maryland Comparison of Long-Term Solar UV Irradiance Data Set and Proxy Model Data

**Yvonne Unruh,** Imperial College, London, UK Irradiance Variations on Rotational Timescales: A Comparison Between SORCE Measurements and the SATIRE Model

**Doug Biesecker (Invited),** NOAA, SWPC, Boulder *Predictions of the Solar Cycle, Past and Present* 

#### Session 2. <u>Atmospheric Models, Processes,</u> and Solar Irradiance

**Michael King (Keynote),** NASA GSFC NASA's Earth Observations of the Global Environment: Our Changing Planet and the View from Space

**David Lary (Invited),** NASA GSFC Solar Photochemistry Stratospheric

**Kiyotaka Shibata,** Meteor. Res. Inst. (MRI), Japan Temperature and Ozone Response to the 11-Year Solar Cycle in the Tropical Stratosphere

#### Poster Session (posters listed below)

# Wednesday, February 6 morning

Session 2 Continued

Mark Schoeberl (Keynote), NASA GSFC *The Aura Mission* 

**Paul Newman (Invited),** NASA GSFC Estimating When the Antarctic Ozone Hole Will Recover

Jay Mace (Invited), Univ. of Utah A Description of Hydrometeor Layer Occurrence Statistics Derived from the First Year of Merged CloudSat and CALIPSO Data

**Terry Nathan (Invited),** Univ. of California, Davis On the Connection Between Solar Spectral Irradiance, Planetary Wave Drag and the Zonal-Mean Circulation

#### Session 3. <u>Models of Solar Processes Affecting</u> <u>Climate</u>

Mark Miesch (Keynote), HAO, NCAR Processes that Cause Solar Irradiance Variability

#### Wednesday, February 6, afternoon

**Karel Schrijver (Invited),** Lockheed Martin ATC, Palo Alto, CA *Magnetic Flux Transport Modeling* 

Sami Solanki (Invited), Max Planck Institute, Lindau, Germany Solar Irradiance and Activity Reconstructions on Timescales up to Millennia

**Juan Fontenla (Invited),** LASP, Univ. of Colorado Modeling the Spectral and Total Irradiance from Solar Atmospheric Structures

Mark Rast, LASP, Univ. of Colorado Latitudinal Variation in the Solar Intensity During the Decline of Cycle 23

**David Hathaway (Invited),** NASA MSFC, Huntsville, AL *Estimating the Next Solar Cycle* 

**Tom Ayres (Keynote),** CASA, Univ. of Colorado *How Star-Like is the Sun; How Solar-Like are the Stars?* 

**Jeffrey Hall,** Lowell Observatory, Flagstaff, AZ Brightness Variations of Solar Analogs during Activity Cycles and Grand Minima

#### Session 4. <u>Climate Models, Processes, and Solar</u> <u>Irradiance</u>

**Caspar Ammann (Keynote),** NCAR, Boulder, CO *IPCC Report and Possible Solar Contributions to Climate Change* 

#### Robert Cahalan, NASA, GSFC

Modeling the Wavelength and Time Dependence of Solar Forcing of Earth's Atmosphere and Ocean Mixed Layer

#### 6:30 p.m. Science Dinner – La Casa Sena

#### Thursday, February 7, morning

Session 4 Continued

**Tom Crowley (Keynote),** Duke University *Fire vs. Fire: Do Volcanoes or Solar Variability Contribute More to Past Climate Change?* 

**David Rind (Invited),** NASA GISS Exploring the Tropospheric Response to Solar Forcing

**Gavin Schmidt (Invited),** NASA GISS Modeling Solar Cycle Impacts on Tropical Hydrology and Proxy Records

**Richard Keen,** Univ. of Colorado, Boulder *Climate Forcing Since 1960: What Does the Moon Have to Say?* 

**Don Anderson (Invited),** NASA Headquarters *CLARREO Overview* 

**Bryant Cramer (Invited),** NASA GSFC NASA ES New Mission Concepts for Future

### **POSTERS**:

**Douglas Allen, Dordt College, Sioux City, IA** Using SORCE Data in the College Classroom

Gary Chapman/Angie Cookson, San Fernando Observatory, CSU TSI and Ground-Based Data: What Can be Learned?

Jerry Harder, LASP, Univ. of Colorado Spectral Decomposition of the TSI Record Using the SORCE TIM and SIM Instruments

**Dora Preminger, San Fernando Observatory, CSU** *The Relationship Between Sunspots and the Variability of the Solar Corona* 

Martin Snow, LASP, Univ. of Colorado Ultraviolet SSI Variability from two SOLSTICEs

**Rodney Viereck, NOAA, SWPC, Boulder, CO** Solar EUV Observations from the NOAA GOES 13 Satellite

**Tom Woods, LASP, Univ. of Colorado** *XUV Photometer System (XPS): Improved Solar Irradiance Algorithm Using CHIANTI Spectral Models* 

#### Erik Richard, LASP, Univ. of Colorado

Solar Spectral Irradiance Variability in the Near-Infrared and Correlations to the Variability of Total Solar Irradiance during the Declining Phase of Solar Cycle 23

**David Harber, LASP, Univ. of Colorado** Absolute Optical Power and Irradiance Comparisons with SORCE/TIM and Glory/TIM Instruments

Jeff Morrill, NRL, Washington, DC NRL Long Term Solar UV Irradiance Model: Status and Future Plans

**Doug Lindholm, LASP, Univ. of Colorado** SORCE Solar Irradiance Data Products

**Christopher Pankratz, LASP, Univ. of Colorado** LASP Interactive Solar Irradiance Datacenter (LISIRD)

Saumitra Mukherjee, Jawaharlal Nehru University, New Delhi, India

*Extragalactic Cosmic Ray Can Affect Sun-Earth Environment and Environment of the Earth* 

**Peter Pilewskie, LASP, Univ. of Colorado** Differential Atmospheric Heating Derived from SORCE Spectral Irradiance

**Rock Bush, Stanford Univ., CA** *Michelson Doppler Imager Observations of the Solar Radius over Cycle 23* 

**Dibyendu Nandy, Montana State Univ.** *Reconstructing Solar Variability Over Multiple Timescales* 

**Sheila Lynch, NAVC, Boston, MA** *Applying Relativity to Earth Climate Data The Damhsa Theory Signs of the Inflationary Universe* 

#### Guoyong Wen, NASA GSFC and UMBC

Modeling Lunar Borehole Temperature in Order to Reconstruct Historical TSI and Estimate Surface Temperature in Permanently Shadowed Regions

# 368,889

Hits to the SORCE Website (Since 4/21/03, As of 12/31/07)



# **Upcoming Meetings / Talks –** SORCE scientists plan to present papers or attend the following 2008 meetings:

SORCE Science Meeting, Feb. 5-7, Santa Fe, NM
AGU Spring Meeting, May 27-30, Ft. Lauderdale, FL
CAWSES (SCOSTEP), June 1-6, Bozeman, MT
37<sup>th</sup> COSPAR Scientific Assembly, July 13-20, Montreal, Canada

Montreal, Canada

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