

SNS • **SORCE News Source**



Solar Radiation and Climate Experiment Monthly Newsletter

Feb. - Mar. 2010

*Solar and Anthropogenic Influences on Earth:
The Current Solar Minimum and Predictions for Future Decades*

Agenda (as of March 17th)

2010 SORCE Meeting

Keystone, Colorado

May 19-21, 2010



Thank you for your abstracts! The final program and all abstracts have been posted online:

<http://lasp.colorado.edu/sorce/news/2010ScienceMeeting/index.html>

The meeting will be held at the **Keystone Resort Conference Center**. Lodging is at the beautiful **Keystone Lodge and Spa**, located right across the street from the Conference Center. A special SORCE rate of \$129/night has been negotiated for this luxury hotel. Call 1-800-258-0437 today and reference the group code CN3SRC.

Meeting registration, lodging and travel information, science program details, and special events (Dick White Celebration and Science Dinner) are posted on the SORCE Meeting website. We hope you will join us! Register today!

~ ~ **Please join us!** ~ ~

Tuesday, May 18

- 1:30 p.m. Oran R. (Dick) White Celebration
"Where did the first 50 years go?"
- 5:00 p.m. Welcoming Reception

Wednesday-Friday, May 19-21

Session 1 – TSI: Comparison of Solar Cycle Minima and Recent Validation Results

David Hathaway, NASA Marshall Space Flight Center
Meridional Flow Variations: Implications for flux transport models

Dick Willson, NASA JPL
The Satellite TSI Database

Claus Fröhlich, PMOD/WRC, Switzerland
Three Solar Cycles of TSI Observations: How TSI is behaving differently and what can we learn about solar variability?

Wolfgang Finsterle, PMOD/WRC, Switzerland
PMO6/PREMOS – The Quest for SI-Traceable TSI Measurements

Devendra Lal, Scripps Inst., Univ. of California
Direct Measurements of Solar Activity in the Past 35,000 Years

Steven Dewitte, Royal Meteorological Inst. of Belgium
TSI Variations and Absolute Level: Status of our knowledge at the start of SC 24

Greg Kopp, LASP, Univ. of Colorado
TSI Instrument Validations Improve TSI Record

Alexander Shapiro, PMOD/WRC, Switzerland
Modeling of the Current TSI & SSI and its Reconstruction to the Past

Session 2 – Climate Changes: What's the Future Going To Be?

Georg Feulner, Potsdam Inst., Germany
How Would a New Maunder Minimum Affect the Climate?

Waleed Abdalati, CIRES, Univ. of Colorado
Ice Sheet Responses to Past and Current Climate Forcings

Session 3 – SSI: Solar Cycle Variation and Model Comparisons

Jerry Harder, LASP, Univ. of Colorado
Measured and Modeled Trends in SSI Variability in the Visible and Infrared

Will Ball, Imperial College London, UK
Understanding Solar Spectral Variability: A 6-year comparison of SIM observations & the SATIRE model

Matt DeLand, SSAI, Maryland
Comparison of Solar Minima Using Solar UV Irradiance Data

Cassandra Bolduc, Université de Montréal, Canada
Near and Mid UV Spectral Irradiance Modeling

Tom Woods, LASP, Univ. of Colorado
Lower Extreme UV During This Current Solar Cycle Minimum

Jeff Hall, Lowell Observatory, Flagstaff, Arizona
Spectral Variations of the Sun During the Recent Cycle Minimum

Gérard Thuillier, Serv. Aéronomie du CNRS, France
A Composite Absolute Solar Irradiance Spectrum at Solar Minimum

Poster Session/Reception (see online listing)

Session 4 – Atmosphere and Ozone Changes: Has the Ozone Recovery Started Yet?

Rich Stolarski, NASA GSFC
Impact of Solar Variability on Ozone and Temperature

Joanna Haigh, Imperial College London, UK
The Solar Spectrum, Stratospheric Ozone and Solar Radiative Forcing of Climate: Implications of SORCE SIM measurements

KK Tung, Univ. of Washington, Seattle
Solar Cycle Influence on Climate: Recent Evidence

Mark Weber, Univ. of Bremen, Germany
Irradiance Variability in the Optical Spectral Range from SCIAMACHY (2002-present)

Robert Cahalan, NASA GSFC
Modeling the Temperature Responses to Spectral Solar Variability on Decadal and Centennial Time Scales

Session 5 – Space Weather Effects Observed During This Solar Cycle Minimum

John Emmert, NRL, Washington DC
Observations of Record-low Thermospheric Density During the Current Minimum

Liyang Qian, HAO, NCAR, Boulder, Colorado
Thermosphere/Ionosphere Response to the Recent Solar Minimum

Dieter Bilitza, George Mason University, Virginia
Ionosphere Changes for This Minimum

Giuliana de Toma, HAO, NCAR, Boulder, Colorado
Evolution of Polar Magnetic Fields and Coronal Holes During the Extended Minimum Between Cycle 23 and 24: Implications for the heliosphere and geospace

David Webb, Boston College, Massachusetts
How Do the Current Solar Wind and CME Data Compare to the Previous Minimum?

Session 6 – Solar Physics: What Do We Learn About the Sun from this Unique Cycle Minimum?

Oran R. (Dick) White, LASP, Univ. of Colorado
What Have We Learned in 50 Years about TSI?

Oran R. (Dick) White, LASP, Univ. of Colorado
Mini Maunder Minimum

Eva Robbrecht, George Mason University and the Royal Observatory of Belgium
The Weak Polar Fields of Solar Cycle 23

Ken Tapping, NRC, Herzberg Inst. of Astrophysics, BC, Canada

Properties of the Sunspot Number and 10.7 cm Solar Flux Activity Indices, Their Interrelationship and Unusual Behaviour Since the Year 2000

Leif Svalgaard, Stanford University
Predicting the Solar Cycle

Paul Charbonneau, Univ. of Montreal, Canada
Abnormal Cycles from Normal Dynamos

Mausumi Dikpati, HAO, NCAR
Cycle 24 Onset: Why more delayed than predicted?

Joan Feynman, JPL, Inst. of Technology, California
Was the Recent Solar Cycle Minimum Unique?

Ken Schatten, ai-solutions, inc.
A Shallow Solar Dynamo, Recent Solar Minimum and Forecasting

Marty Snow, LASP, Univ. of Colorado
Active Longitudes Over Three Solar Cycles

Richard Mewaldt, Caltech
Record-Breaking Cosmic-Ray Intensities During 2009 & 2010

SORCE Science Dinner – Keystone Ranch

Session 7 – Recommendations for the Future: How to Improve the Climate Data Record?

John Bates, NOAA, Boulder, Colorado
The Future for Climate Monitoring by NOAA

Peter Pilewski, LASP, Univ. of Colorado
The Sun, Climate, and the Total and Spectral Solar Irradiance Sensor

Bill Collins, Univ. of California, Berkeley
The Future Evolution of the Earth's Reflected Shortwave Spectrum

Dean Pesnell, NASA GSFC
The Solar Dynamics Observatory: Your eye on the Sun

Important Deadline: April 16th

Pre-Registration

(\$275 fee goes to \$300)

Lodging – Keystone Lodge

(Call 1-800-258-0437 today,

Reference: CN3SRC)

1,355,284

Hits to the *SORCE* Website

(Since 4/21/03, As of 3/12/10)

6th IAGA/ICMA/CAWSES Workshop: Long-Term Changes and Trends in the Atmosphere

June 15-18, 2010

**National Center for Atmospheric Research
Boulder, Colorado**

The goals of this workshop are to review the current state of knowledge about trends in the atmospheric regions, and to discuss what research is necessary for resolving inconsistencies, reducing uncertainties, and achieving a deeper understanding of middle and upper atmospheric climate change – especially the relative influences of anthropogenic and solar effects.

***Abstract Deadline: April 1
Pre-registration: May 15***

A special session on Friday, June 18, will be dedicated to Ray Roble to honor his contribution to this field. The session will be followed by a reception and dinner. It is possible to register for the entire workshop, or for the Roble Symposium only.

For more information on this workshop visit:

<http://www.hao.ucar.edu/TREND2010/index.php>.



SORCE Scientists Attend Boulder Solar Day –

The LASP *SORCE* team participated in the annual Boulder Solar Day held Friday, March 5th at the High Altitude Observatory at NCAR (National Center for Atmospheric Research, Boulder, Colorado). The purpose of this gathering is for local solar scientists to learn what their fellow researchers are doing. Boulder is fortunate to have one of the greatest concentrations of solar physics institutes in the world, including CU/JILA, CU/LASP, NCAR/HAO, NESDIS/NGDC, NOAA-NWS/SWPC, NWRA/CoRA, and SwRI. *SORCE* TIM scientist Greg Kopp was a member of the 2010 Boulder Solar Day organizing committee.



Juan Fontenla, *SORCE* SIM scientist, gave an invited talk entitled, *New Observations of Solar Spectral Irradiance from the UV to the NIR*. Additionally, three others working with *SORCE* data gave poster presentations – Greg Kopp, Marty Snow, and Margit Haberleiter, all from LASP. The complete program with abstracts can be found online at: <http://www.hao.ucar.edu/BSA2010/BSD2010schedule.php>.

Upcoming Meetings / Talks – SORCE scientists plan to present papers or attend the following 2010 meetings:

2010 Boulder Solar Day, March 5, NCAR
SORCE Science Meeting, May 19-21,
Keystone, Colorado

American Astronomical Society /Solar Physics Division
(AAS/SPD), May 23-27, Miami, Florida
Global Change and the Solar-Terrestrial Environment
Workshop, Aspen Global Change Institute, Aspen,
Colorado, June 12-17

38th Scientific Assembly of the Committee on Space
Research (COSPAR), July 18-25, Bremen, Germany
AGU Fall Meeting, Dec. 13-17, San Francisco, California

**To submit information to this newsletter, please contact:
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