



2010 SORCE Meeting

Keystone, Colorado

May 19-21, 2010

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

Abstracts Due: Feb. 19

As in the past, this interactive meeting will be an opportunity for cross-disciplinary interaction between solar, climate, and atmospheric scientists. The agenda will consist of invited and contributed oral and poster presentations. **Abstracts are due: Feb. 19, 2010.** See the SORCE Meeting website for abstract submission information and form – send abstracts by **email** to Vanessa George at Vanessa.George@lasp.colorado.edu.

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

Proposed Sessions:

1. This Unique Solar Cycle Minimum

- Paul Charbonneau, University of Montreal, Canada
- Matt DeLand, SSAI, Maryland
- Steven Dewitte, Royal Meteor. Inst. of Belgium, Brussels
- Wolfgang Finsterle, PMO Davos, Switzerland
- Claus Fröhlich, PMO Davos, Switzerland
- Jerry Harder, LASP, Univ. of Colorado
- David Hathaway, NASA Marshall Space Flight Center, Huntsville, Alabama
- Greg Kopp, LASP, Univ. of Colorado
- Bill Livingston, NSO, Tucson, Arizona
- Dick Mewaldt, Caltech, Pasadena, California
- Marty Snow, LASP, Univ. of Colorado
- Leif Svalgaard, Stanford University, California
- Ken Tapping, NRC, Herzberg Inst., BC, Canada
- David Webb, Boston College, Massachusetts
- Dick White, LASP, Univ. of Colorado

- Dick Willson, NASA JPL, Pasadena, California
 - Tom Woods, LASP, Univ. of Colorado
2. **Forcings During This Minimum and Forecasts for the Next Solar Cycle**
- Waleed Abdalati, CIRES, Univ. of Colorado
 - Dieter Bilitza, NASA GSFC
 - John Emmert, NRL, Washington, DC
 - Georg Feulner, Potsdam Inst. for Climate Impact Research, Germany
 - Rich Stolarski, NASA GSFC
 - Thomas Stocker, Univ. of Bern, Switzerland
 - KK Tung, Univ. of Washington, Seattle
 - Mark Weber, Univ. of Bremen, Germany
3. **Recommendations for the Future: How to Improve the Climate Data Record?**
- John Bates, NOAA, Boulder, Colorado
 - Bill Collins, Univ. of California, Berkeley
 - Dean Pesnell, NASA GSFC
 - Peter Pilewskie, LASP, Univ. of Colorado
 - Gérard Thuillier, Service d'Aéronomie du CNRS, France

Important Due Dates:

Abstracts: * Feb. 19 *****

Pre-Registration: April 16

Keystone Lodging: April 16

The meeting will be held at the *Keystone Resort and Conference Center*. Lodging is at the beautiful *Keystone Resort and Spa*, which is located right across the street from the Conference Center. This luxury hotel offers exceptional accommodations, elegant alpine style décor, and friendly service. The Lodge is at the edge of Keystone Lake, a popular spot for summer and winter activity. The property features a wonderful spa and fitness center, WIFI in all guest rooms and public space, and many other nice amenities. The SORCE special rate is \$129/night. Logistics (lodging, transportation) and meeting details (abstracts, specific agenda with times) are posted on the SORCE website (<http://lasp.colorado.edu/sorce/news/meetings.htm>) as they become available. We encourage your participation and hope you will join us! Register today –

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

Dick White Tribute

There will be a special session in recognition of O. R. (Dick) White's contributions to solar physics on Tuesday, May 18, just before the **SORCE Meeting** begins. Gary Rottman will chair the session called *Where did the first 50 years go?* Speakers who will reflect on Dick's contributions include Kim Malville, Bill Livingston, Tom Bogdan, and Gary Rottman. Comments from attendees are welcome (20 minute max), and anyone interested should contact Gary, gary.rottman@lasp.colorado.edu. Please visit the **SORCE Meeting website** for updates –



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



Call for photos!

We are preparing a **Poster Board** with photos of Dick at various times in his career. If you have a photo you would like to share please send it to Gary Rottman (gary.rottman@lasp.colorado.edu).

Please identify individuals in the photo and include your figure caption if possible. Thanks!

~~ Please join us! ~~

SORCE



**Happy 7th Birthday
SORCE!
(Launched Jan. 25, 2003)**

SORCE Scientists Attend ISSI Working Group on Modeling SSI Measurements –

By Jerry Harder and Margit Haberreiter, *LASP, Univ. of Colorado*

Jerry Harder and Margit Haberreiter attended the **ISSI Working Group – Modeling of Solar Spectral Irradiance Measurements**, December 9-11, in Bern,



Switzerland. The International Space Science Institute (ISSI) is where scientists from all over the world meet to explore new scientific horizons and to gain a deeper understanding of the results from different space missions, ground-based observations and laboratory experiments, and adding value of those results through multi-disciplinary research in the framework of international teams. The ISSI programs cover a broad spectrum of disciplines from the physics of the solar system and planetary sciences to astrophysics and cosmology, and from Earth sciences to astrobiology.

LASP scientists, Jerry Harder, Juan Fontenla, Margit Haberreiter, and Mark Rast are members of the ISSI focus group activity “Interpretation and modeling of Solar Spectral Irradiance measurements”. This work helps the **SORCE** project by publishing **SORCE** science results with international teams of scientists and increases the usage of **SORCE** data products. This focus group also applies the scientific finding from the **PSPT** solar imager from both the **Rome Observatory** (Ilaria Ermolli, lead scientist) and **Mauna Loa Observatory** (Mark Rast, lead scientist; see the <http://lasp.colorado.edu/pspt/> for more information).

On December 9 Jerry Harder gave a presentation on the radiometric calibration of **SIM** and a comparison of the **SORCE SIM** and **SOLSTICE** instruments with the **SOLSPEC ATLAS 3** composite, a standard solar reference spectrum. This information was valuable in the discussions related to plans of this group (including Harder) in its publication of the paper “*New era of SSI measurements: a spectral and temporal intercomparison between SUSIM, SCIAMACHY, and SIM*”, Joseph Paganan at the University of Bremen will be the lead author on this paper. This paper will be published in the spring of this year. Additional comparative studies are planned for **SIM** and the backup channels of the **VIRGO** spectral filter radiometers in conjunction with Christoph Wehrli at the **World Radiation Center (PMOD WRC)**. On the second day of the meeting Harder discussed a comparison of the **SIM** radiometric measurements with the **SRPM** (Solar Radiation Physical Modeling) to discuss how advances in the model are now starting to match the observation. This effort will also be published as part of this ISSI focus group along with Juan Fontenla, Ilaria Ermolli, and Mark Rast.



Contributing members to the December 2009 ISSI focus group "Interpretation and modeling of Solar Spectral Irradiance measurements". Shown left to right, Vittorio Mano (ISSI), Margit Haberreiter (LASP), Natalie Krivova (Max Planck Institute for Solar System Research, MPS), Yvonne Unruh (Imperial College, London), Joseph Paganan (University of Bremen), Jerry Harder (LASP), Linton Floyd (Interferometrics, Inc., USA), Ilaria Ermolli (Astronomical Observatory of Rome), Nadine Afram and Will Ball (Imperial College, London). Also members of the group, but not present, Juan Fontenla and Mark Rast (LASP), Sami Solanki (MPS), Werner Schmutz and Christoph Wehrli (PMOD/WRC, Davos), and Mark Weber (Univ. of Bremen).

Furthermore, the second day of the meeting, Margit discussed latest work on the spectral synthesis of the UV/EUV modeled with the Solar Radiation Physical Modeling (SRPM) system. She showed that using 1D coronal models representing different regions of the corona it is possible to reproduce the quiet Sun EUV spectrum as observed during a EVE calibration rocket flight. She also showed work in progress of EIT image analysis which will allow the identification of active regions in the corona. These results have the potential to help understand the X-ray/EUV measurements taken with the *SORCE/XPS* and the *SDO/EVE* instrument.

1,258,838
Hits to the *SORCE* Website
(Since 4/21/03, As of 1/29/10)

***SORCE* Data Access with LISIRD –**

By Doug Lindholm, LASP, Univ. of Colorado

SORCE interactive data access has a new home and new capabilities. The *SORCE* web site (<http://lasp.colorado.edu/sorce/data/>) continues to be the ultimate source of information about the *SORCE* data products, however, links to interactive data access have changed to allow us to evolve away from unsupported

technologies towards a reusable framework that is based on standards and enables interoperability with other data centers and Virtual Observatories.

The newly revised *LASP* Interactive Solar Irradiance Data Center (*LISIRD*, <http://lasp.colorado.edu/lisird/>) web site was released for the 2009 Fall meeting of the American Geophysical Union. It incorporates new server technology that enables more data access options and a web interface with interactive plots that support data exploration and selection.

The engine behind *LISIRD* is the Time Series Data Server (*TSDS*) which is being developed at *LASP* in coordination with Bob Weigel at George Mason University. This server software implements the *OPeNDAP* interface which is a NASA approved standard. *OPeNDAP* provides a simple web URL based request syntax which supports various data sub-setting options, functions, and multiple output format options. Numerous client applications and programming languages have *OPeNDAP* client capabilities.

LISIRD provides a web interface to the solar irradiance related data products that our *TSDS* is configured to serve. This includes *SORCE* level 3 *TSI* and *SSI*. Follow the *LISIRD* link to discover more.

Each data set can be explored in *LISIRD* using an interactive plotting tool for zooming and panning. When the desired subset of data is selected, the data can be downloaded in one of several formats. In addition to access to individual data sets, *LISIRD* has tools for comparing multiple data sets.

The *LISIRD* web site is still taking shape, and we welcome any feedback. You can contact us at lisird@lasp.colorado.edu.

Upcoming Meetings / Talks –

SORCE scientists plan to present papers or attend the following 2010 meetings:

ISSI Working Group – Cross-Calibration of past FUV Experiments, Jan. 11-12, Bern, Switzerland

WACCM (Whole-Atmosphere Community Climate Model) Working Group, Feb. 22, NCAR, Boulder, Colorado

2010 Boulder Solar Day, March 5, NCAR, Boulder, Colorado

SORCE Science Meeting, May 19-21, Keystone, Colorado

Global Change and the Solar-Terrestrial Environment Workshop, Aspen Global Change Institute, Aspen, Colorado, June 12-17

To submit information to this newsletter, please contact:
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