

## 2014 SORCE Science Meeting -- Program Speakers

(as of Nov. 14, 2013)

Speakers are listed alphabetically within each session.

### **Session 1. Role of the Sun in Climate Change during the SORCE Mission**

William Ball, Imperial College London, UK

*SSI and Stratospheric Ozone: A new assessment of the relationship using Bayesian Inference*

Cassandra Bolduc, Université de Montréal, Canada

*Modelling Stratospheric Ozone Variability with the MOnTeCarlo SSI Model (MOCASSIM)*

Robert Cahalan, NASA GSFC, Greenbelt, Maryland

*After 11 Years with SORCE – What’s New? What’s Next?*

Josefino Comiso, NASA GSFC, Greenbelt, Maryland

*Sea Ice Changes in Recent Decades*

Joanna Haigh, Imperial College London, UK

*Sun-Climate Solar Cycle Effects and Climate Change – A Review*

Aimee Merkel, Laboratory for Atmospheric and Space Physics (LASP), University of Colorado, Boulder

*Further Evidence of Solar Cycle Variability in Middle Atmospheric Ozone and the Importance of Incorporating SSI in Atmospheric Modeling*

Martin Mlynczak, NASA Langley Research Center, Hampton, Virginia

*Influence of Solar Variability on the Structure, Composition, and Energy Balance of the Atmosphere from 2002 to 2014*

Anna Shapiro, Physikalisch-Meteorologisches Observatorium Davos, World Radiation Center (PMOD/WRC), Switzerland

*The Stratospheric Response to a Discrepancy of the SSI Data*

Tamas Varnai, NASA GSFC, Greenbelt, Maryland; and University of Maryland, Baltimore County

*Advances in Understanding 3D Interactions between Sunlight and the Atmosphere during the SORCE Mission*

### **Session 2. SSI Measurements**

David Bolsée, Belgium Institute for Space Aeronomy, Brussels

*Accurate Determination of the TOA Solar Spectral NIR Irradiance Using a Primary Standard Source and Bouguer-Langley Technique*

Gaël Cessateur, PMOD/WRC, Switzerland

*THE PREMOS/PICARD Radiometer: An overview after 3 years of observations*

Matthew DeLand, Science Systems and Applications, Inc. (SSAI), Lanham, Maryland

*Solar Cycle 24 Variability Observed by Aura OMI*

Jerry Harder, LASP, University of Colorado, Boulder

*Observations of Solar Variability in the 240-2400 nm Range using SORCE SIM*

Jeff Morrill, Naval Research Laboratory (NRL), Washington, DC  
*Title coming soon...*

Christian Muller, Belgium Institute for Space Aeronomy, Brussels  
*Full Solar Rotations Observed by the SOLAR Payload on the ISS in December 2013 and June 2014*

Werner Schmutz, PMOD/WRC, Switzerland  
*Variations of Near-UV and Visual Solar Spectral Irradiance as Measured by VIRGO/SoHO and PREMOS/Picard*

G rard Thuillier, Laboratoire Atmosph res, Milieux, Observations Spatiales (LATMOS) / Centre National de la Recherche Scientifique (CNRS), France  
*SOLSPEC: Recent results and status*

Tom Woods, LASP, University of Colorado, Boulder  
*Reference Solar Spectra for Earth Science Research*

### **Session 3. Decadal and Longer Sun-Climate Variations**

J rg Beer, Eawag: Swiss Federal Institute for Environmental Science and Technology, D bendorf, Switzerland  
*Solar Variations and Climate Change: The view from ice cores*

Roger-Maurice Bonnet, International Space Science Institute (ISSI), Bern, Switzerland  
*Review and Discussion of Past and Future Climates, of their Astronomical, Solar, and Anthropogenic Forcing. Strategies for Future Space and Modeling Research*

Gerald North, Texas A&M University, College Station  
*Paleoclimatic Analysis of Solar Cycle Imprint on Greenland Surface Temperatures*

Alexander Ruzmaiken, NASA Jet Propulsion Laboratory (JPL), California Institute of Technology, Pasadena  
*Sun-Climate Variations on Centennial Time Scales*

Sami Solanki, Max Planck Institute for Solar System Research, Goettingen, Germany  
*Towards the Next Generation of Solar Irradiance Reconstruction Models*

Guoyong Wen, NASA GSFC, Greenbelt, MD; GESTAR, Morgan State University, Baltimore, Maryland  
*Climate Responses to Spectral Solar Forcing in GISS GCMAM*

Dong Wu, NASA GSFC, Greenbelt, Maryland  
*The  $s=0$  Atmospheric Oscillations in 35-Year MERRA Zonal Wind and Temperature*

### **Session 4. TSI Measurements and Composites**

Jean-Fran ois Cossette, Universit  de Montreal, Canada  
*Cyclic Thermal Signature in a Global MHD Simulation of Solar Convection*

Wolfgang Finsterle, PMOD/WRC, Switzerland  
*Of Straying Photons, Shiny Apertures, and an Inconstant Solar Constant – Advances in TSI Radiometry*

Claus Fr hlich, PMOD/WRC, Switzerland  
*New and Improved Version of the VIRGO TSI and PMOD Composite*

Greg Kopp, LASP, University of Colorado, Boulder  
*"Variability" in the TSI Over the SORCE Mission – and Beyond*

Jae N. Lee, JCET, Univ. of Maryland, Baltimore County; NASA GSFC, Greenbelt, Maryland  
*Rotational Variations in Total Solar Irradiance Observations: From SORCE/TIM, ACRIM/ACRIM III, and SoHO/VIRGO*

Richard Willson, ACRIM Principal Investigator, Coronado, California  
*ACRIM3 Characterization by the LASP/TRF and the Total Solar Irradiance Database*

## **Session 5. SSI Composites, Proxies, Models**

Serena Criscuoli, National Solar Observatory (NSO), Sacramento Peak, Sunspot, New Mexico  
*Interpretation of SIM Measurements from Analysis of 3D MHD Simulations*

Thierry Dudok de Wit, LPC2E / Centre National de la Recherche Scientifique (CNRS) & University of Orléans, France  
*Multi-Wavelength Solar Radio Observations and their use as Solar Proxies for Upper Atmospheric Modeling*

Juan Fontenla, NorthWest Research Associates, Boulder, Colorado  
*The UV SSI of the Sun Compared to Cooler Stars, Similarities and Differences*

Margit Haberreiter, PMOD/WRC, Switzerland  
*SOLID – a European Project towards a Comprehensive Solar Irradiance Data Exploitation*

Matthieu Kretschmar, LPC2E, CNRS University of Orléans, France  
*Assessment of Solar Irradiance Datasets for the SOLID Project*

Natalie Krivova, Max-Planck-Institut für Sonnensystemforschung, Katlenburg-Lindau, Germany  
*Modelling Solar Irradiance with SATIRE*

Micha Schöll, LPC2E, CNRS University of Orléans, France  
*First Steps Towards a Homogeneous Solar Spectral Irradiance Data Set: Selection, merging and quality assessment*

Alexander Shapiro, PMOD/WRC, Switzerland  
*How to Constrain the Spectral Profile of the Solar Irradiance Variability?*

Martin Snow, LASP, University of Colorado, Boulder  
*The Magnesium II Index: 35 Years and Counting*

Rich Stolarski, Johns Hopkins University, Baltimore, Maryland  
*The Impact of Solar Spectral Irradiance Variations on Stratospheric Composition: Theory and observations*

Ken Tapping, National Research Council, D.R.A.O., Penticton, BC, Canada  
*The Continuing Deviation between the Sunspot Number and F10.7 Activity Indices*

Anatoliy Vuiets, LPC2E, CNRS University of Orléans, France  
*What Can We Learn from SORCE about the Contribution of Different Magnetic Structures to the Solar Spectral Irradiance?*

## **Session 6. Legacy of SORCE and Future Directions after SORCE**

Pål Brekke, Norwegian Space Centre, Oslo, Norway  
*NORSAT-1: Total Solar Irradiance, Space Weather, and Ship Detection*

Peter Pilewskie, Dept. of Atmospheric and Oceanic Sciences and LASP, University of Colorado, Boulder  
*TSIS Status*

Mark Rast, Dept. of Astrophysical and Planetary Sciences and LASP, University of Colorado, Boulder  
*The Case for a Radiometric Imager, and How to Build One*

Gary Rottman, LASP, University of Colorado, Boulder  
*The Historical Development of SORCE*

Brian Soden, Rosenstiel School for Marine and Atmospheric Science (RSMAS), University of Miami, Florida  
*Climate Feedbacks*

Graeme Stephens, NASA Jet Propulsion Laboratory (JPL) and California Institute of Technology, Pasadena  
*Future of Total Solar Irradiance Measurements*

Yukihiro Takahashi, Hokkaido University, Sapporo, Japan  
*Micro-Satellite as an Alternative Vehicle*

## **Poster Session**

Stéphane Beland, LASP, University of Colorado, Boulder  
*SORCE SIM Data Version 19*

Gary Chapman, San Fernando Observatory, California State University, Northridge  
*The Declining Strength of Recent Sunspot Cycles*

Angela Cookson, San Fernando Observatory, California State University, Northridge  
*Using Ground-Based Ca II K Images as a Proxy for Shorter UV*

Thierry Dudok de Wit, LPC2E, CNRS University of Orléans, France  
*How to Make Composites out of Multiple Observations*

Thierry Dudok de Wit, LPC2E, CNRS University of Orléans, France  
*The Impulse Response of the Solar Spectral Irradiance: What does it tell us about the solar spectral variability?*

Wolfgang Finsterle PMOD/WRC  
*CLARA – A Compact and Light-Weight Absolute Radiometer*

Claus Fröhlich, PMOD/WRC, Switzerland  
*Understanding Long-term Changes of the VIRGO Radiometer and Sunphotometer in Space*

Shashi K. Gupta, Science Systems and Applications Inc. (SSAI), Lanham, Maryland  
*Projection of SORCE Total Solar Irradiance Measurements 5-10 Days Forward for Near Real-Time Applications*

Doug Lindholm, LASP, University of Colorado, Boulder  
*SORCE Solar Irradiance Data Products and the LASP Interactive Solar Irradiance Data Center (LISIRD)*

Courtney Peck, Dept. of Physics and LASP, University of Colorado, Boulder  
*The Role of the Solar Center-to-Limb Variation in Deduced Photometric Trends*

Erik Richard, LASP, University of Colorado, Boulder  
*A Compact Solar Spectral Irradiance Monitor for Future Small Satellite and CubeSat Science Opportunities*

Nicola Scafetta, ACRIM team  
*Empirical Evidences for a Planetary Gravitational/Electromagnetic Modulation of Total Solar Irradiance Satellite Measurements*

Nicola Scafetta, ACRIM team  
*Discussion on Climate Oscillations: CMIP5 general circulation models versus vs. a semi-empirical harmonic model based on astronomical cycles*

Martin Snow, LASP, University of Colorado, Boulder  
*SORCE Undergraduate Research Program*