Solar EUV Irradiance Inter-Calibration and Validation Workshop 2011

Solar EUV Irradiance Inter-Calibration and Validation Workshop

October 25-27, 2011
Laboratory for Atmospheric & Space Physics Room LSTB-A200
Boulder, Colorado

We are in an era when there are multiple simultaneous measurements of the solar EUV irradiance being made with instrumentation of differing design and calibration methodologies. Comparing measurements is only the first step in understanding the true value and variability of the EUV spectral irradiance. Understanding potential differences in results requires detailed comparisons of the instruments and methodologies used to make the measurements.

To start this process we are holding a small, invitation-only workshop at LASP in October, 2011. The workshop will be aimed at teams that have measured the EUV irradiance in order to compare the following topics:

- Irradiance results
- Instrument design
- Measurement equation
- Sampling in time and wavelength
- Dark correction
- Calibration methodology
- Degradation models and corrections

The overarching goal of this workshop is to come to an understanding of how the EUV irradiance is being measured and to develop a unified strategy for determining the absolute value of the EUV irradiance and how it varies, both in wavelength and time.

Kickoff/Keynote talk on “Lessons Learned from TSI Inter-Comparisons” by Greg Kopp.

Logistics

Detailed Agenda

Tuesday Oct. 25

8:00 - 8:30 a.m. Continental Breakfast (provided at LASP)

Session 1: Introductions

8:30 - 9:00 a.m. Welcome Andrew Jones
9:00 - 9:30 a.m. Workshop Purpose Frank Eparvier
9:30 - 10:15 a.m. Keynote: TSI Comparisons - Lessons Learned Greg Kopp
10:15 - 10:45 a.m. Break (Coffee provided)
10:45 - 11:15 a.m. Comparisons - The Devil is in the Details Frank Eparvier

Session 2: Instruments

11:15 - 11:25 a.m. Instrument Overview Andrew Jones

Photometers

11:25 - 11:45 a.m. SEE and SORCE XPS Tom Woods
11:45 - 12:05 p.m. LYRA Marie Dominique
12:05 - 12:15 p.m. Discussion
12:15 - 1:00 p.m. Lunch (provided at LASP)

General Talks: Why it Matters

1:00 - 1:20 p.m. Solar Physics Rachel Hock
1:20 - 1:40 p.m. Application of EUV Measurements for the Derivation of Parameters for the Interstellar Gas Flow through the Heliosphere Peter Bochsler and Eberhard Möbius

1:40 - 1:50 p.m. Discussion

Spectrophotometers

1:50 - 2:05 p.m. SoHO-SEM Seth Weiman
2:05 - 2:20 p.m. SDO-EVE-ESP Leonid Didkovsky
2:20 - 2:40 p.m. GOES-NOP-EUV Slides presented by Jones
2:40 - 2:50 p.m. Discussion
2:50 - 3:20 p.m. Break (Coffee Provided)

Spectrometers & Spectrographs

3:20 - 3:40 p.m. TIMED-SEE-EGS Frank Eparvier
3:40 - 4:00 p.m. SDO-EVE-MEGS Tom Woods
4:20 - 4:35 p.m. SoHO-CDS Instrument , Calibration Slides presented by Jones
4:35 - 4:45 p.m. Discussion
4:45 - 5:00 p.m. Day 1 Wrap-up and Homework Assignments

6:30 p.m. *Group Dinner --- Walnut Brewery, 1123 Walnut Street, Boulder, CO 80302-5116*

Reservation under the name "Solar",www.walnutbrewery.com

Wednesday Oct. 26

8:00 - 8:30 a.m. Continental Breakfast (provided at LASP)

General Talks: Calibration Facilities

8:30 - 8:50 a.m. NIST Uwe Arp
8:50 - 9:10 a.m. NSLS Jim Bremer (Jim's Zone Plate Presentation)

Session 3: Instrument Calibrations

9:10 - 9:30 a.m. SEE and SORCE XPS Tom Woods
9:30 - 9:50 a.m. LYRA Ingolf Dammasch
9:50 - 10:10 a.m. SoHO SEM Seth Weiman
10:10 - 10:30 a.m. SDO-EVE-ESP Leonid Didkovsky
10:30 - 10:50 a.m. Break (Coffee provided)
10:50 - 11:10 a.m. GOES-NOP-EUV Slides presented by Jones
11:10 - 11:30 a.m. TIMED-SEE-EGS Frank Eparvier
11:30 - 11:50 a.m. SDO-EVE-MEGS Tom Woods
11:50 - 12:10 p.m. SOLACES Instrument , (animation) -Raimund Brunner, Calibration -Bernd Nikutowski
12:30 - 1:15 p.m. Lunch (provided at LASP)
1:15 - 1:45 p.m. Tour of LASP

Session 4: Data Comparison Splinters

1:45 - 2:00 p.m. Assignments
2:00 - 5:00 p.m. Splinter Groups :

- ESP Bandpasses
- May 15 2010, March 4 2011, 0-7, 17-23, 26-34, 121.6 nm comparisons

Working Dinner (if necessary/desired we will order food to be delivered to LASP)

Thursday Oct. 27

8:00 - 8:30 a.m. Continental Breakfast (provided at LASP)

General Talks: Empirical Models

8:30 - 8:50 a.m. FISM and the TIMED-SEE Record Phil Chamberlin

8:50 - 9:10 a.m. Discussion
9:10 - 10:20 a.m. Splinter Group Reports PDF of Comparison Table
10:20 - 10:50 a.m. Break (Coffee provided)
10:50 - 12:00 noon Discussion -- What next? Future plans?
12:00 - 12:15 p.m. Workshop Wrap-up / Summary
12:15 - 1:00 p.m. Lunch -- Box lunches provided (to go or stay) Move to SPSC Building

1:00 - 5:00 p.m. Continued discussion for those staying in SPSC Building

Workshop Action Items