

Space Physics Seminar

Thursday, September 25, 2014

Solar Wind Trends in the Current Solar Cycle – the STEREO Perspective

Toni Galvin

*University of New Hampshire
Astrophysics*

Abstract:

The STEREO mission provides both in-situ and remote observations of the solar wind. Since commissioning in 2007, the two observatories (STEREO-A, STEREO-B) have been drifting away from the Earth, providing longitudinal coverage of the Sun and heliosphere at 1 AU. The spacecraft are currently acting as a backside space weather monitor, each observatory at 160-degree separation angle from the Earth, and 30-degree separation from each other.

The solar cycle conditions during the mission have included the longest duration solar minimum since the beginning of the space age, followed by a relatively modest solar maximum. In this talk we will report on the solar wind trends observed during this solar cycle, with a comparison to earlier cycles, and will relate to solar and heliospheric remote observations. We will highlight some specific time periods that illustrate extremes seen in the solar wind as observed by the in-situ instruments, including high-speed interplanetary coronal mass ejections, such as the July 2012 event that reached speeds in excess of 2000 km/s.

3:30 pm

Refreshments
CAS Room 500

4:00 pm

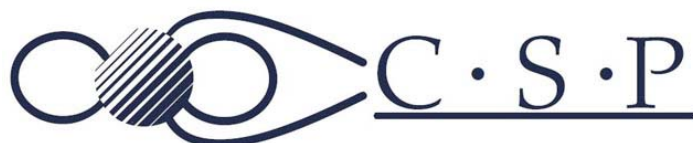
Seminar
CAS Room 502

Next Week

- Mari Paz Miralles
*Harvard-Smithsonian Center
for Astrophysics*
- Probing the Origin of the
Solar Wind: A
Heliospheric Quest



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725 Commonwealth Avenue
Boston, MA 02215