

Friday, April 28, 2017

4:10 – 5:00 PM

Barnard/EPS 103

Postcards From The Edge (of the Corona)

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Abstract:

The solar corona and solar wind are parts of a single, unified system. The coinage, “Heliophysics”, is meant to reflect that unification of historically-separate fields. Solar physics and space physics have each developed separate communities, divided by the technologies used to measure each system: solar wind physics is typically informed by direct in-situ sampling, while coronal physics is informed by remote electromagnetic sensing in UV, visible light, or radio. However, for the first time the fields are beginning to overlap significantly: recent advances in signal processing permit direct visible-light imaging of the solar wind itself; and the upcoming Solar Probe Plus mission will sample the solar corona directly. Many questions central to both fields cannot be answered without a unified understanding of the corona and solar wind as a single system.

New measurements and improved models are necessary in “final frontier” of the heliosphere. I will present an overview of understanding and imaging studies of the transition from the stellar atmosphere (outer corona) to the solar wind itself, highlighting new results and areas that need more attention.

Host: Charles Kankelborg

***** Refreshments served in the EPS second floor atrium at 3:45 *****