

PUNCH it! Unifying Solar Physics and Solar Wind Physics

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**Friday September 24, 2021, 3:30pm
Planetary Hall 112 and via Zoom**

Abstract: For over 50 years, solar physics and solar wind physics have been separate disciplines, divided by the measurements used to explore each topic. At this cusp in history, the fields are merging. The Polarimeter to unify the Corona and Heliosphere (PUNCH) is a Small Explorer constellation mission being built by Southwest Research Institute, the Naval Research Laboratory, and the Rutherford Appleton Laboratory. PUNCH will provide routine, regular, deep-field, 3D images of the entire outer corona and inner heliosphere for a nominal two-year science mission starting in 2024 and is specifically designed to generate seamless views of the poorly understood region where the solar corona becomes the solar wind itself. The four spacecraft and cameras work together as a single “virtual instrument” with a 90-degree field of view, centered on the Sun. I will discuss the science, technology, and status of the PUNCH mission, and how to get involved in this exciting upcoming mission.

Bio: Dr. Craig DeForest got his start in plasma physics at the age of 15, at the D3D Tokamak facility in San Diego. As a graduate student at the West Bay Farm School, he helped pioneer EUV imaging of the solar corona with Art Walker’s MSSTA sounding rocket that presaged SDO/AIA. He has been at Southwest Research Institute for over 20 years, working on new analysis techniques and instrument designs. He is now both PI of the PUNCH mission and the Chair of the AAS/SPD.