

2018 - 2019 SPACE PHYSICS SEMINAR SERIES

Expanding Coronal Studies into the Infrared: Results from the 2017 Total Solar Eclipse and Future Prospects

During the 2017 total solar eclipse an SAO/Harvard team flew a cryogenic IR spectrograph on the NSF NCAR Gulfstream V (GV) research jet. The spectrograph observed five emission lines from 1.4-4microns. The flight identified a new emission line, curiously large flows and measured the radiative contribution to excitation as a function of radius for our strongest line. The 2017 flight demonstrated that stabilized solar pointed observations are possible from the (GV). We will re-fly an upgraded version of the spectrograph during the July 2019 South Pacific eclipse and have a proposal to NSF for a generalized pointing platform that will allow for competed instruments ahead of the 2024 US total solar eclipse. The case for further IR investigations of the corona will be discussed.

**Thursday, January 31st**

4:00 - 5:00 p.m.

725 Commonwealth Avenue | Room 502

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