

Title: Observations of a Flare-Associated Current Sheet in the Extended EUV Corona

Student: Christopher R. Totzauer (University of Montana)

Mentors: Daniel B. Seaton (CU Boulder/NOAA) and Jonathan M. Darnel (CU Boulder/NOAA)

Abstract:

We present observations of an X8.2 solar flare which occurred 2017 September 10 from NOAA Active Region 12673 from the Solar Ultraviolet Imager (SUVI) on NOAA's GOES-16 spacecraft. SUVI provides a unique opportunity to study eruptive events over six wavelengths with a field of view extending into the middle corona. Taking advantage of these benefits, we investigate a structure associated with a current sheet present in this event, including the characterization of its physical properties such as tracking of flows and other dynamics. We compare the evolution of this structure to the corresponding coronal mass ejection (CME). These measurements serve as an observational confirmation of predictions of reconnection dynamics in an eruptive solar flare described by Forbes et al (2018) with which we find good agreement.