

Alphonse
Sterling
NASA/MSFC
Oral
(Invited Talk)

While solar coronal jets were first extensively observed in the Yohkoh era of the 1990s, observations of them in SDO during the 2010s and onward have provided fresh insights into their causes and nature.

Most of them are caused by eruptions of minifilaments, with at least many of those eruptions being triggered by magnetic flux cancelations in the photosphere. Similar activity on larger-size scales manifests as typical solar eruptions that result in filament eruptions, flares, and CMEs. In addition, there is evidence that such activity also occurs on smaller-than-jet size scales too, resulting in hard-to-observe (inconspicuous) coronal jets, the features known as "jetlets," and possibly smaller (spicule-sized) features. We focus on connections, and possible connections, of jets and jet-like features to heliospheric phenomena such as narrow CMEs (aka "white-light jets"), polar plumes, magnetic switchbacks, and solar wind outflows. This presentation is supported by NASA's Heliophysics Supporting Research (HSR) and Heliophysics System Observatory Connect (HSOC) Programs, and by the NASA/MSFC Hinode Project.

Presentation file

[18_Alphonse_Sterling.pdf](#)

YouTube link

[View Video](#)

Meeting homepage

[PUNCH 4 Science Meeting](#)

[Download to PDF](#)