Una Schneck

Tim Howard

SwRI, Boulder, Colorado

University of California, Los Angeles

Los Angeles, California

The Evolution of Eruptive Filaments at Great Distances

Eruptive filaments (EF) are cool, dense clumps of plasma erupted from the solar corona. They constitute the rear-most portion of a classic coronal mass ejection (CME). While filaments are well-understood on the surface of the sun, very little is known about them once they've erupted. However, new research this year has discovered that around seven solar radii the brightness of a CME is dominated by Thomson Scattering (Howard 2015). This means that solar images can now be analyzed to attain the mass trends of an EF far from the sun. By analyzing heliospheric images of prominences in STEREO's HI-1 and HI-2 instrument, we can track how eruptive filaments change over large distances.