Reconnection during CME Propagation and Interaction

Lugaz, Noé (1), noe.lugaz@unh.edu; C. J. Farrugia (1); W. Manchester (2); and N. Schwadron (1).
(1) Space Science Center and Dept. of Physics, University of New Hampshire, Durham, NH, USA
(2) University of Michigan, Ann Arbor, MI, USA

Coronal mass ejections (CMEs) interact with the solar wind, interplanetary magnetic field (IMF) and other CMEs as they propagate in the inner heliosphere. Although white-light imaging provides some insight about the evolution of the CMEs, most information is gained by performing numerical simulations and studying in situ measurements. Here, we present results of recent MHD simulations of the reconnection of a CME with the IMF and with another CME as they propagate as well as some evidence of this type of processes from in situ measurements at 1 AU.