
Observations of electron-only and standard reconnection in the exterior cusp during the string-of-pearls campaign

Tai Phan^{*†1} and Prayash Pyakurel²

¹Space Sciences Laboratory, University of California, Berkeley – United States

²University of California, Berkeley – United States

Abstract

Since January of 2025, the MMS spacecraft has been crossing the high-latitude exterior cusp once per orbit, encountering highly turbulent plasmas with a large number of thin current sheets present. I will present examples of current sheets that display electron-only reconnection, as well as examples of standard ion-couple reconnection in this region. I will also discuss the differences seen at the different spacecraft during this larger spacecraft separation phase of the mission.

*Speaker

†Corresponding author: phan@ssl.berkeley.edu