



Kinetic aspects of ion jets in the near-Earth magnetotail

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Magnetic reconnection plays a major role in the process of energy conversion in the terrestrial magnetosphere. In the near-Earth magnetotail, reconnection occurs at thin current sheets resulting in ion outflow jets. In this work, we survey MMS high-resolution data from June to September 2017, and June to July 2018 when the mission was regularly located in the tail. Periods with high-speed ion outflows near the X-line in thin current sheets are selected in order to study the evolution of the ion jets. For doing this, we characterize the ion velocity distribution functions of the jets depending on 1) their distance relative to the X-line, and 2) the structure of the X-line.