The Allocation of Energy Flux Transport at Bursty Bulk Flows

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Abstract

Bursty bulk flows (BBFs) are the fast, several hundred km/s, earthward flow of plasma in the tail and have been shown to be responsible for a large portion of energy flux transport earthward from the tail into the inner magnetosphere despite being relatively short-lived. BBFs are also often accompanied by energetic particle injections, in which particles that have been accelerated to 10s-100s of keV either at the reconnection site or while they travel earthward. In this work, we will investigate which of these two populations contributes more to earthward energy flux transport or whether both are important.

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