

## Study of bursty bulk flow reversals using MHD simulations and satellite observations

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Tailward flow in the near-Earth plasma sheet associated with a rebound of the earthward bursty bulk flow (BBF) is investigated using three-dimensional magnetohydrodynamics simulations of magnetic reconnection in the magnetotail on the basis of the spontaneous fast reconnection model and GEOTAIL satellite observation data. In order to investigate the properties of this tailward flow, virtual satellites are located at different positions in the plasma sheet within the simulation region, so that we can directly observe the temporal variations of plasma quantities in accordance with the growth and preceding the flow reversal associated with the magnetic reconnection, and compare with satellite observation data. As a result of the rebound of the earthward flow, the accumulation of the plasma density and the plasma pressure is observed at any position in the plasma sheet during the interval between the BBF and the reverse flow.