

Convection in the dayside magnetosphere observed by electric field detectors onboard GEOTAIL

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Cold dense plasma with plasmaspheric origin flows away from the stagnation point in the dayside magnetosphere. In this study, we examined the electric field near the stagnation point by using the data obtained by EFD-B instruments onboard GEOTAIL. The electric field determined by the drift step method and the time of flight method is not so different. The electric field obtained by the EFD-B instruments is also similar to those obtained by the EFD-P instruments and the LEP instruments. The direction of convection associated with the cold dense plasma tends to be westward. The magnitude of AC component electric field is large. Quasi-steady particle flow in the outer magnetosphere could be explained by a large component of AC electric field near the stagnation point.