

Field-aligned current estimation based on the direction of observed auroral electrojets: Reimei observations

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In this study, we examine the estimation of field-aligned current around the altitude of 600 km from the Earth. Generally, the field-aligned current was deduced from the deviation of the observed magnetic field from the IGRF model, assuming the direction of the ionospheric aurora jets. Since Reimei satellite observes the aurora image around the footprint, we can determine the direction of auroral electrojets properly and discuss the validity of some assumption for the field-aligned current estimation.