

---

PEM021-08

Room: Function Room A

Time: May 24 11:00-11:15

## Substorm-associated overshielding in the evolution of geomagnetic storms

Kumiko Hashimoto<sup>1\*</sup>, Takashi Kikuchi<sup>2</sup>, Shinichi Watari<sup>3</sup>, Tsutomu Nagatsuma<sup>3</sup>

<sup>1</sup>Kyushu University of Health and Welfare, <sup>2</sup>STEL, Nagoya University, <sup>3</sup>NICT

We have reported that overshielding often occurred during substorms. On the other hand, Kikuchi et al., (2008) demonstrated that overshielding occurred at the beginning of storm recovery phase. In this paper we examined whether the stormtime overshielding is associated with the substorm using data from magnetometer arrays, HF radar networks and photometer at auroral latitude. We discuss a role of the substorm in the evolution of geomagnetic storms.

Keywords: Convection electric field, Overshielding, DP2 current, substorm, geomagnetic storm