

## Dependence of low-latitude ionospheric electric fields on solar wind parameters at the time of SC

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To detect ionospheric electric fields, we have built a FM-CW radar (HF radar) in Sasaguri, Fukuoka (geomagnetic latitude=23.2degree, geomagnetic longitude=199.6degree).

Using data from FM-CW radar and CPMN (a global network of magnetometers managed by Kyushu University), we can observe the ionospheric electric field during at the time of SC and estimate its intensity. For example, intensity of PI electric field was 0.16mV/m (westward) and MI was 0.54mV/m (eastward) in dayside at Nov.4, 2003 and MI was 1.01mV/m (westward) in nightside at Jan.21, 2005, respectively. In this talk, I will compare of magnetic field intensity with electric field intensity at the time of SC.

And, using data of ACE (a NASA satellite that monitors solar wind), the generation characteristic of PRI by the state of solar wind was examined. The result : The dynamic pressure of the solar wind clearly affects the generation of PRI, but the influence of IMF is unclear. In addition, I will examine generation characteristic of PRI using radar data.