

## 鹿児島ロケット実験による電離圏中の電場観測

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### Electric field measurements in the ionosphere by Kagoshima sounding rocket experiments

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S-310-37 and S-520-23 sounding rocket experiments are carried out at Uchinoura Space Center (USC) in 2007. The purpose of S-310-37 rocket experiment is an integrated observation of the high electron temperature layer in the Sq current focus during the winter daytime over USC. In order to measure the field-aligned electric field due to the Sq current, we develop the three-dimensional electric field detector (EFD). The EFD measures three components of electric field by using 3 pair of probe antenna. On the other hand, the purpose of S-520-23 rocket experiment is the investigation of the process of momentum transportation between the atmospheres and the plasma in the thermosphere during the summer evening time at mid latitudes. The electric field and VLF/MF band receiver (EVMR) is loaded on this sounding rocket. The EVMR measures the two components of electric field by using 2 pair of probe antenna in order to obtain a dynamics of plasma particle in the ionosphere.

In presentation, we will show the preliminary report of electric field measured by two sounding rocket experiments.