

**U054-060**

**Room: Ocean B**

**Time: May 16 16:30-16:45**

## Mechanism of ionospheric dynamo and its dependence on the parameters

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In the ionosphere the dynamo action of neutral winds blowing across the geomagnetic main field drives the currents generating geomagnetic Sq field. This dynamo is characterized by the features of extra-exciting electromagnetic dynamo in the weakly-ionized plasma. In the present study we first examine ionospheric parameters controlling the dynamo, and next effects of the geomagnetic main field. Last, variation of the amplitude of geomagnetic Sq field was examined in a long period, and it was found that the Sq amplitude is affected by the secular variation.