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PEM032-P23

Room:Convention Hall

Time:May 27 10:30-13:00

## A study of Sq and EEJ based on atmospheric general circulation model

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It is known that Sq and equatorial electrojet (EEJ) current systems exist in the E-region and they show day-to-day and seasonal variations. These current systems are mainly induced by atmospheric tidal winds.

Kawano-Sasaki and Miyahara (2008) developed a quasi-three-dimensional dynamo model that is symmetric about the equator. They studied three-dimensional structures of the dynamo currents using the September neutral winds in the middle atmosphere general circulation model at Kyushu University, and showed that variations of the neutral winds induce daily variations of Sq and EEJ.

We extend their model to include anti-symmetric components, and simulate asymmetric three-dimensional dynamo currents. Simulations are also conducted using the wind data for June and December when asymmetric components become dominant. We will mainly discuss about relationships between the day-to-day and seasonal variations of the neutral winds and the simulated current system.

Keywords: Sq, EEJ, ionosphere