

First observation of whistler-mode chorus with wavy tones

*Zhonglei Gao¹

1.University of Science and Technology of China

Whistler-mode chorus emissions usually appear as rising tones, falling tones, constant tones, hooks and hiss-like band. Here we report a new type of chorus with "wavy tones" observed by Van Allen Probes. The frequency of chorus rose by up to 500 Hz within ~0.5s and then fell back within ~0.7s. This behavior repeated to give a wavy pattern and the continuous wavy structure lasted for ~10s. At the same time, rising tones and hiss-like band occurred above and below the wavy tones. The generation mechanism of chorus with wavy tones need to be further investigated.