

## ISS-IMAP/VISIで観測された中間圏擾乱構造の水平空間スケール依存性

# 齊藤 昭則 [1]; 穂積 裕太 [2]; 坂野井 健 [3]; 岡田 凌太 [4]  
[1] 京都大・理・地球物理; [2] 電通大; [3] 東北大・理; [4] 京大・理・地球惑星

Horizontal scale dependency of the mesospheric disturbances observed by  
ISS-IMAP/VISI

# Akinori Saito[1]; Yuta Hozumi[2]; Takeshi Sakanoi[3]; Ryota Okada[4]  
[1] Dept. of Geophysics, Kyoto Univ.; [2] UEC; [3] Grad. School of Science, Tohoku Univ.; [4] Earth and Planetary, Kyoto Univ.

The horizontal structures of the mesospheric disturbances have been widely investigated with ground-based all-sky imagers (ASIs). The wave characteristics, such as wavelength and propagation velocity, are derived from sequences of two-dimensional images of the mesospheric airglow. It is reported that the horizontal wavelength of the mesospheric structures has a maximum between 10 km and 30km. The structures whose wavelength is longer than 100 km are, however, difficult to be observed by ground-based ASIs because of the limitation of ASI's field-of-view. Visible and near Infrared Spectral Imager (VISI) of Ionosphere, Mesosphere, upper Atmosphere and Plasmasphere (IMAP) mission onboard the International Space Station (ISS) observed the mesospheric airglow structures from 2012 to 2015. It covered the wave length range from 500nm to 900nm. The airglow of 730nm (OH, Alt. 85km), 762nm (O<sub>2</sub>, Alt. 95km), and 630nm (O, Alt. 250km) were mainly observed besides the other airglow, such as 589nm (Na) and 557 (O). The 762nm airglow from the molecular oxygen is used to investigate the mesospheric structures. The size of the field-of-view is 600km in the direction perpendicular to the ISS trajectory, and longer than 10,000km along the trajectory. The observed airglow disturbances are categorized in three scales. The scale dependency of the mesospheric disturbances will be discussed in the presentation.