

国際宇宙ステーションからの撮像画像を用いた中間圏大気光メソスケール波動構造の研究
Airglow image of mesospheric mesoscale wave captured from the International Space Station

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Mesoscale wave-like structures in the mesospheric airglow were captured by an imaging observation from the International Space Station. Limb imaging observations with a digital single reflex camera provided us the horizontal structure of mesospheric airglow with unprecedentedly wide field-of-view(FOV). The FOV is 3,000 km width at the tangential point. Previous airglow observations captured small scale (10 - 400 km) structures by ground based airglow imagers and large scale (several 1,000s km) structures by satellite limb scanning. Our observation captured mesoscale wave-like structure, whose wavelength is about 1,000 km, and filled the gap of the previous observation. A data on August 26, 2015 shows wavelike oscillation in both peak intensity and layer height for OI, Na and OH airglow. Its wavelength is about 1,000 km and the wave existed region is about 2,500 x 3,000 km size over the Indian ocean and Australia. In the presentation, the cause of this structure will be discussed.

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