

MIS024-02

会場:301B

時間:5月25日 14:30-14:45

## 宇宙線 27 日周期変動の雲活動への影響の可能性について Possible influence of cosmic-ray 27-day variation on cloud activity

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We have examined the possible effect of solar rotation on the tropical convective cloud activity based on the data of outgoing longwave radiation (OLR) for AD1979-2004. The signal of 27-day solar rotational period has been most significantly detected around the Indo-Pacific Warm Pool, but only at the maxima of the eleven-year solar cycle. The amplitude of the 27-day variation in OLR is about 10-20% of overall variability.

The connection between cloud activity and solar rotation can be possibly explained by solar-related parameters such as solar irradiance, solar-UV, solar wind, and solar and galactic cosmic rays. In order to identify the possibility of cosmic-ray influence on cloud activity at this time scale, we have analyzed the OLR data more in detail, taking into account the characteristics cosmic-ray 27-day variation caused by the drift effect of cosmic rays in the heliosphere. In this paper, we report the preliminary results of the analyses obtained so far.

キーワード: 宇宙線, 太陽活動, 雲活動, 太陽自転周期

Keywords: cosmic rays, solar activity, cloud activity, solar rotation