



Seasonal studies of the mid-latitude trough in the South hemisphere.

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The mid-latitude trough in general is night-time phenomenon. It can be observed in both hemispheres. This presentation is dedicated to the south hemisphere mid-latitude trough characteristics. The 'southern' trough can be observed almost whole year, but most regularly in summer.

Using DEMETER satellite data measurements we have performed analysis of the trough parameters in the magnetic coordinates system. For comparison we have also studied observations obtained by FORMOSAT-3/COSMIC mission, which also enabled us to investigate how the trough parameters change with altitude.

DEMETER observations covers the period of deep solar minimum. We have considered the influence of the geomagnetic conditions on the trough characteristics, separating data with low Kp (0-2) index from data with high Kp (2-9) index. This work presents the results of our analysis.