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CLOUD TOP HEIGHT ESTIMATION FROM WRF MODEL: APPLICATION TO THE INFRARED CAMERA ONBOARD EUSO-BALLOON (CNES)

Tuesday, 4 August 2015 16:00 (1 hour)

EUSO-BALLOON (CNES) was launched on August 24, 2014 from Timmins (Canada) with a biespectral Infrared Camera onboard intended to measure the cloud coverage during the flight. Clouds at mid and upper levels of the Troposphere are crucial for a proper reconstruction of the main parameters of the Ultra-High Energy Cosmic Rays (UHECR). Therefore, determining Cloud Top Height (CTH) with high accuracy is crucial to estimate the effect of clouds on these measurements. With this aim, we have developed a method to extract CTH parameters via vertical profiles predicted by the WRF model. Moreover, we have evaluated model's ability to represent temperature and humidity profiles in different climatic regions of the globe.

Collaboration

JEM-EUSO

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