

ABSTRACT

SPACE AND TIME CHARACTERISTICS OF CONVECTIVE CLOUDS DURING CHUVA CAMPAIGNS

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The purpose of this study is to investigate the space and time organization of the convective clouds and rain cells during the CHUVA campaigns. The morphological properties, the relationship between cloud and rain cells organization, the typical life cycle duration and cells propagations will be described for each CHUVA site. Clouds will be analyzed using using geostationary satellite thermal channel information (10.8 μm) and rain cells using data from XPOL radar. The Forecasting and Tracking of Cloud Cluster algorithm (ForTraCC) was employed to obtain information about evolution, speed, and lifetime durations of the convective systems for the four CHUVA experiments: Fortaleza, Belém, Vale do Paraíba and Santa Maria. The regional differences and the specific characteristic of each region will be evaluated and discussed.