



## **Interannual variability of shallow convective organization over the tropical Atlantic**

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Shallow clouds in the trade-wind regions exhibit a large range of mesoscale organizations. Using high-frequency geostationary satellite data and a clustering analysis, we characterize shallow convective organizations over the tropical Atlantic during winter. We analyze the diversity and the variability of mesoscale organizations at the inter-annual timescale, and investigate their correlation with large-scale environmental conditions such as temperature, humidity and atmospheric circulation. Then, using active remote sensing observations from the A-Train constellation of satellites, we investigate whether for given boundary conditions, different mesoscale organizations of shallow clouds are associated with differences in mean precipitation, cloudiness and radiation at the large-scale. The implications of these findings for climate will be discussed.