

## **Application of WINCUBE and LIDAR system for study of planetary boundary layer**

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One of the approaches to understand and better know about the planetary boundary layer is using WINCUBE and LIDAR system. As the maritime continent, Indonesia has a high complexity of the climate system due to its position in the equator, lie between two oceans and continent. The climate system in Indonesia is affected by several factors from global phenomenon such as El Niño to the local condition like land sea breeze. The research focuses on the characteristic of planetary boundary layer in three regions. The regions are rural, urban and coastal area. The study explores the WINCUBE and LIDAR system and focuses mainly on the rainy season. As a result there are differences in the characteristics of PBL in three locations. These results are very important for the analysis of pollution and air quality. Keyword: WINCUBE, LIDAR , planetary boundary layer, urban boundary layer