

Characterization of sub-daily rainfall properties in three raingauges located in northeast Brazil

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Abstract This paper aims to evaluate the characteristics of rainfall events of three experimental basins located in northeast Brazil. The study areas are located, one in Ceará State and two in Paraíba State. Thus, the definition of rainfall events was based on two characteristics: minimum inter-event time and minimum event depth. Then, they were classified according to the shape of the hyetograph: to the left rectangular, triangular, and triangular with peak, and to the right, bimodal and unshaped. Evaluation of the percentages of each type of hyetograph and the main characteristics of rainfall events (peak, duration and intensity) was carried out. The results shows that the two experimental basins located in the semi-arid region have similar characteristics, and shapeless events have significant accumulated rainfall.

Key words rainfall events; hyetograph; classification