

ANALYSIS OF RAINFALL EXTREME EVENTS IN NORTHERN ALGERIA

Variability of Annual And Extreme Rainfall Over Northern Algeria And Relationship With Teleconnections Patterns

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ABSTRACT

The daily rainfall extremes have been analyzed for 5 stations of Northern Algeria, over seventy years. The choice of these stations is based on the availability of long and complete daily rainfall series. Two classification methods have been used to analyze daily rainfall. Eight Percentiles indices of daily rainfall are considered in the first method: 1st, 25th, 50th, 75th, 90th, 95th and 99th. The second method is evaluated the number of wet day into live interval class of rainfall: 1-5 mm, 5-10 mm, 10-20 mm, 20- 50mm, > 50 mm. Theilsen slope and the linear regression show a general decreasing trend of the number of extreme events, but it is not significant At each station the Kendall correlation has been used to search for correlations between the frequency of extreme rainfall events and climatic indices time series. The results show that the frequency of extreme rainfall events in Algiers are correlated with the Mediterranean Oscillation Index (MOI), while the stations of Annaba and Oran are better correlated with the Southern Oscillation Index (SOI).