PRINCIPAL COMPONENT ANALYSIS IN RAINFALL NETWORK DATA HIERARQUIZATION

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ABSTRACT

The costs of installing and maintaining a rain gauge network are obviously proportional to the density of the system. In contrast, the gain of information may not be straight proportional, as some data may simply convey the same information already represented by rain gauge. Principal component analysis is a methodology which can be used to evaluate the information contained in a rainfall gauge network to point redundant stations, allowing the optimization of resources for representing spatial variation. The methodology is tested on a 17 rain gauge network installed in São Paulo - Brazil, trying to assess the best configuration of stations among those installed.

PALAVRA-CHAVE: distribuição especial, rede meteorological, eventos extremos