

A GEOSTATISTICAL APPROACH FOR RAINFALL PATTERNS, USING PROXIMITY INDICES

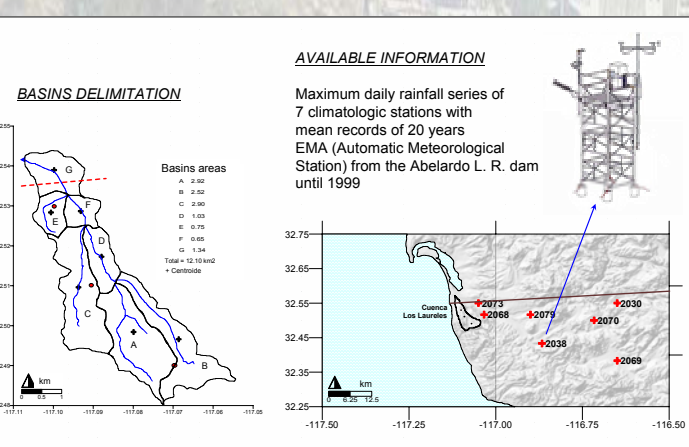
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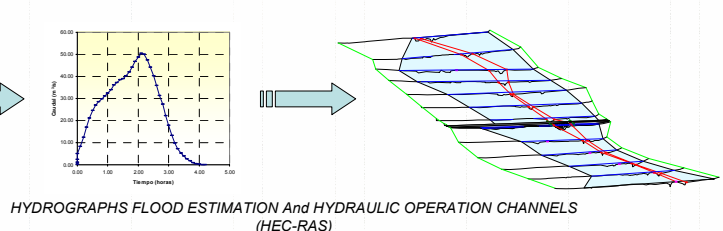
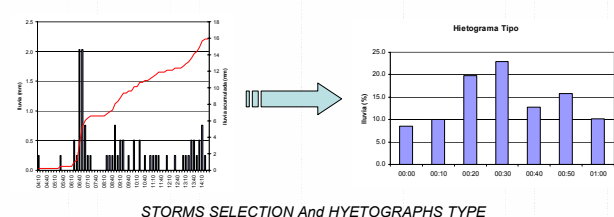
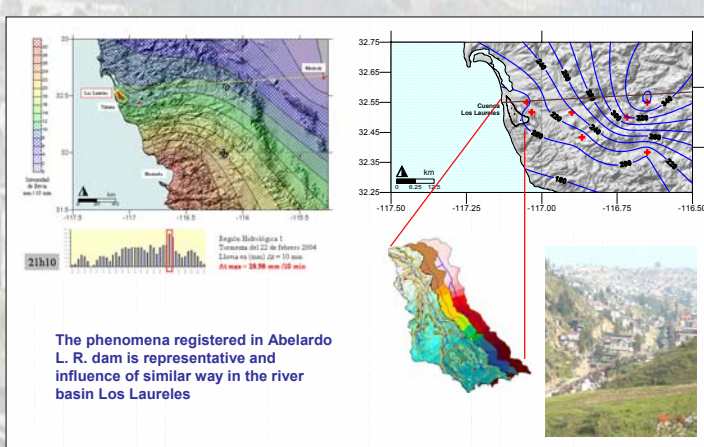
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The interpolation space methods have been developed in recent years and also several techniques of neighbouring rainfall interpolation (mathematical models). Many characteristics affected the space distribution of precipitation in a hydrological region, however a suitable estimation at ungauged rainfall station depends on the quality of regional measurements and the method that is used for the estimation. In this study appears a modification of the technique of space multiquadratic interpolation.



The matrix of distances used in this procedure is calculated using different proximity indices (Manhattan, Sup-distance, Normalized and Euclidean distance). It is verified using these indices significantly modifies the results of the interpolation. The results are compared with a procedure of restricted Kriging and its respective errors can be expressed as a function of their variances. Finally the results of each one of the distance matrices are validated with an analysis of cross-validation. The mentioned technique is applied to obtain rainfalls patterns in the hydrological river basin Los Laureles, in the North part of the Mexican Republic.

