

Sample X_i (e.g., Cloud Shape on Day i) and Y_i (e.g., Ground Wetness on Day i)

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graph TD; A[Sample X_i (e.g., Cloud Shape on Day i) and Y_i (e.g., Ground Wetness on Day i)] --> B[Compute Distances Between All Pairs of X and All pairs of Y]; B --> C[Compute the distance correlation between X and Y, ignoring large distances and maximize the local correlation]; C --> D[Compute the p-value via permutation test, and determine the optimal scales (those with small p-values)];
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Compute Distances Between All Pairs of X and All pairs of Y

Compute the distance correlation between X and Y , ignoring large distances and maximize the local correlation

Compute the p-value via permutation test, and determine the optimal scales (those with small p-values)