STAT428Presentation

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Algorithm

-Distance Correlation Test

-Hilbert-Schmidt Independence Criterion Test

-Sum of Rank Correlations Test

-Maxima of Rank Correlations Test

How Do Testify The Most Optimized Method

-Real Data Application

-Choice of Tuning Parameter and Distance

-Type I Error (False Alarm) Comparison

Real Data Comparison

-DCOR: True -HSIC: True -SRC: True -MRC: True

Choice of Tuning Parameter and Distance

-Choosing tuning parameters and distances in data analysis is like adjusting settings on a music equalizer or selecting the best route for a journey. These choices help tailor the analysis to accurately reflect the data's nature, ensuring that insights derived are both relevant and precise for decision-making.

-DCOR

-HSIC

Type I Error (False Alarm) Comparison

-DCOR is better for small data (Error 2%)

-HSIC is better for large data (Error 0%)

Thank you!