Brito, M. R.; Chávez, E. L.; Quiroz, A. J.; Yukich, J. E.
Connectivity of the mutual \( k \)-nearest-neighbor graph in clustering and outlier detection.

Summary: For multivariate data sets, we study the relationship between the connectivity of a mutual \( k \)-nearest-neighbor graph, and the presence of clustering structure and outliers in the data. A test for detection of clustering structure and outliers is proposed and its performance is evaluated in simulated data.

MSC:
- 62H30 Classification and discrimination; cluster analysis (statistical aspects)
- 62H15 Hypothesis testing in multivariate analysis

Keywords:
- mutual nearest neighbors
- outlier detection
- clustering

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References:

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