

## SPATIAL HIERARCHICAL CLUSTERING WITH BINARY ATTRIBUTES

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- **ABSTRACT:** In this paper, the methodology is employed to create clusters of Brazilian municipalities, based on the increase or decrease in the number of jobs between 1997 and 2007. Several clustering methods are investigated, as well as several types of vector distances for binary variables. A discussion on selection of the number of clusters is presented. Finally, case studies are presented in order to: (a) compare the intra-cluster variability of spatial hierarchical clusters versus the intra-cluster variability of existing political agglomerations (states, micro-regions and meso-regions); (b) identify areas of diversified economic growth.
- **KEYWORDS:** Spatial clustering; binary variables; geographic contiguity; hierarchical algorithms.

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