

## **Factorial Analysis and Spatial Statistics of crimes registered in cities of Mato Grosso**

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**Abstract:** Crime is one of the problems that most affects society today, so the number of subtracted, wounded and dead goods has been growing over the years in all Brazilian states. The present study had as objective to analyze data of crimes in municipalities of the state of Mato Grosso by means of statistical techniques. For this purpose, the multivariate factor analysis technique was applied in order to obtain a summary and scores of these variables that combined with spatial statistics serve to illustrate the space-time situation of these crimes in relation to the study area. The multivariate techniques applied were efficient because they managed to reduce the 16 (sixteen) studied variables composed of different types of crimes to only 3 (three) factors and the spatial statistic identified critical regions for each factor.

**Keywords:** crimes, principal component analysis, factorial analysis, spatial statistical analysis.

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