Cluster Analysis for burned areas detection

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In wildfires study some of main problems are to record fire burned areas and to evaluate fire severity. Traditional methods are expensive and time-consuming field surveys. The available remote sensing technologies may allow us to develop standardized burn-severity maps for evaluating fire effects and addressing post fire management activities.

Different index exist in literature to capture fires in remote sensing images, but they do not take enough in count spatial effects that occure in these phenomena, that is they do not take in count spatial autocorrelation in the distribution.

With this aim in this work MODIS (Moderate Resolution Imaging Spectroradiometer) and ASTER (Advanced Spaceborne Thermal Emission and Reflection Radiometer) data have been processed using geo-statistic analyses, methods that allow us to study spatial relationships inside burned areas.