



Time-variation of urban morphology in a small town of southern Italy explored by using Landsat data

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The spatial features of urban expansion of a small town in southern Italy were investigated by using spatial fractal analysis applied to two Thematic Mapper (TM) satellite images. The analysis was focused on the town border extracted from NASA TM Landsat images acquired in 1987 and 1998. The border was analysed using the box counting method, which is a well-know technique to estimate the spatial fractal dimension, that quantifies the shape irregularity of an object. The obtained results show that the fractal dimension of the border of the investigated town increases from 1987 to 1998, indicating a tendency toward a more regular shape. This increase is also connected with the urban expansion and the population growth.