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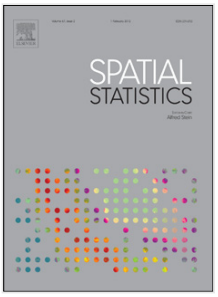

A two-step method for mode choice estimation with socioeconomic and spatial information

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A two-step method for mode choice estimation with socioeconomic and spatial information

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Individuals choose the travel mode considering their own characteristics, those of the journey and the transport systems. Despite the current wide availability of georeferenced information and the forthcoming of Spatial Travel Demand Analysis as a research field, only a few studies have integrated the mode choice modeling methods and the geographical information. In this context, the goal of this paper is to apply a two-step method to estimate the mode choice based on the geographical position and socioeconomic attributes. From a database of household surveys in the city of São Carlos (Brazil) the first step of the method is to select the attributes which most influence the mode choice with a Decision Tree (*DT*). After comparing the performance of the *DT* with a Multinomial Logit Model, an Ordinary Kriging is applied to predict the mode choice under the spatial locations. The *DT* has shown to be effective in estimating the mode choice and select-

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