
A Geostatistical Modeling of Urban Land Values in Milwaukee, Wisconsin

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Abstract

Most studies on urban land values focus on the determinants, using hedonic land price models with the consideration of the physical and socio-economic factors. This article employs geostatistical methods to analyze urban land values. Through a case study of Milwaukee, we set up semivariogram models and 3-D TIN surface models for urban land values, and explore anisotropy characteristics and the relationships of land values among different types of land use. We have found that spatial dependency is a salient feature of urban land values, and spatial clustering of land values varies with type and location of land use. Our models can detect and well explain spatial autocorrelations of urban land values. We demonstrate that geostatistical methods have a great potential when applied in the urban context.
