



*sustainability*



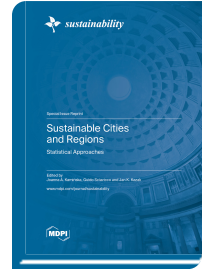
*Special Issue Reprint*

## **Sustainable Cities and Regions - Statistical Approaches**

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This Special Issue deals with a range of social and environmental applications of mathematics. First, articles deal with mediation analysis in studying the impact of socioeconomic factors on health, convergence analysis for assessing the sustainability of EU state economies using cluster analysis, access to economic independence using mutual information and kernel density information, verifying the impact of the location of residential properties in relation to poverty levels, ecosystem services in streets and spatial analysis in an economic model studying spatiotemporal interactions. The second topic discussed is environmental elements modelling, covering nonlinear models enabling the reconstruction of missing meteorological data, green and low-carbon rural development with the use of graph analysis and PM 2.5 and PM 10 prediction modelling with the Nonlinear Autoregressive Exogenous Model. The third is related to purifying the environment polluted by humans with the use of living organisms, and the fourth concerns the real estate market, utilizing a vector autoregressive model to identify the interrelationships between a housing market based on Google Trends and the housing process in Poland and using multiple linear regression to examine the residential real estate market based on intrinsic and extrinsic data.



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