ADVANCES IN SPATIAL SCIENCE

Antonio Páez Ron N. Buliung Julie Le Gallo Sandy Dall'erba Editors

Progress in Spatial Analysis

Methods and Applications



Advances in Spatial Science

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Progress in Spatial Analysis

Methods and Applications



Editors

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For Patricia, Leonardo, and Luanna (AP) For Tara, Meera, and Emily (RB)

Foreword

Space is one of the fundamental categories by means of which we perceive and experience the world around us. Behaviour takes place in space, and the geographical context of behaviour is important in shaping that behaviour. While space by itself explains very little, spatial processes and the spatial patterning of behaviour have long been viewed as a key to understanding, explaining, and predicting much of human behaviour.

Whether or not spatial analysis is a separate academic field, the fact remains that, in the past 20 years, spatial analysis has become an important by-product of the interest in and the need to understand georeferenced data. The current interest in the mainstream social sciences to geography in general, and location and spatial interaction in particular is a relatively recent phenomenon. This interest has generated an increasing demand for methods, techniques, and tools that allow an explicit treatment of space in empirical applications. Thus, spatial analysis tends to play an increasingly important role in measurement, hypothesis generation, and validation of theoretical constructs, activities that are crucial in the development of new knowledge. The fact that the 2008 Nobel Prize in economics was awarded to Paul Krugman indicates this increasing attention being given to spatially related phenomena and processes. Given the growing number of academics currently doing research on spatially related subjects, and the large number of questions being asked about spatial processes, the time has come for reflecting on the progress made in spatial analysis.

As an editor of the book series, I highly welcome the present edited volume on *Progress in Spatial Analysis* with a focus on theory and methods, and thematic applications across several academic disciplines. The effort is a worthy intellectual descendent of previous volumes in the series, including Anselin and Florax's *New Direction in Spatial Econometrics* in 1995, Fischer and Getis' *Recent Developments in Spatial Analysis* in 1997, and Anselin, Florax, and Rey's *Advances in Spatial Econometrics* in 2004.

I am pleased to realize the mixture of very well-established leaders in the field of spatial analysis and a new generation of scholars who, one hopes, will continue to carry the torch ignited more than 50 years ago at the dawn of *Quantitative Geography and Regional Science*. In this spirit, it is my hour to formally proffer the welcome to this edited volume, and to the effort poured into bringing major

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developments and applications into a single source representing recent publications in spatial analysis. I anticipate that this volume will become a valuable reference, as the previous offerings in the series.

Vienna May, 2009 Manfred M. Fischer

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