Record Nr. UNINA9910299433803321 Computational Approaches for Urban Environments [[electronic **Titolo** resource] /] / edited by Marco Helbich, Jamal Jokar Arsanjani, Michael Leitner Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa **ISBN** 3-319-11469-7 Edizione [1st ed. 2015.] 1 online resource (394 p.) Descrizione fisica Geotechnologies and the Environment, , 2365-0575;; 13 Collana 330.9 Disciplina 621.3848/5 628 710 910 Soggetti Regional planning Urban planning Economic geography **Environmental sciences** Landscape/Regional and Urban Planning **Economic Geography Environmental Science and Engineering** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Computational Approaches for Urban Environments: An Editorial -- Part I Spatial Planning and Decision-Making -- From Fractal Urban Pattern Analysis to Fractal Urban Planning Concepts -- Knowledge Discovery in Spatial Planning Data: A Concept for Cluster Understanding --Clustering Contextual Neural Gas: A New Approach for Spatial Planning and Analysis Tasks -- Part II Housing and Real Estate -- Hedonic House Price Modeling Based on Multilevel Structured Additive Regression --Simple Agents, Complex Emergent City: Agent-Based Modeling of Intraurban Migration -- Quantifying Urban Diversity: Multiple Spatial

Measures of Physical, Social and Economic Characteristics -- Part III

Urban Transportation and Mobility -- Everyday Cycling in Urban Environments: Understanding Behaviors and Constraints in Space-Time -- Performance Improvements for Large-Scale Traffic Simulation in MATSim -- Part IV Remote Sensing -- Recent Advances on 2D and 3D Change Detection in Urban Environments from Remote Sensing Data -- Fusion of Airborne Hyperspectral and LiDAR Remote Sensing Data to Study the Thermal Characteristics of Urban Environments -- Modeling Urban Land Use Change: Integrating Remote Sensing with Socioeconomic Data -- Part V Urban Sensing, Social Networks and Social Media -- Linked Activity Spaces: Embedding Social Networks in Urban Space -- Using Non-authoritative Sources During Emergencies in Urban Areas -- Towards a Comparative Science of Cities: Using Mobile Traffic Records in New York, London and Hong Kong -- Epilogue.

## Sommario/riassunto

This book aims to promote the synergistic usage of advanced computational methodologies in close relationship to geospatial information across cities of different scales. A rich collection of chapters subsumes current research frontiers originating from disciplines such as geography, urban planning, computer science, statistics, geographic information science, and remote sensing. The topics covered in the book are of interest to researchers, postgraduates, practitioners, and professionals. The editors hope that the scientific outcome of this book will stimulate future urban-related international and interdisciplinary research, bringing us closer to the vision of a "new science of cities."