

Contents

1	Perspectives on Spatial Data Analysis	1
	Luc Anselin and Sergio J. Rey	
Part I Spatial Analysis		
2	Spatial Interaction and Spatial Autocorrelation: A Cross-Product Approach	23
	Arthur Getis	
3	Spatial Statistical Analysis and Geographic Information Systems	35
	Luc Anselin and Arthur Getis	
4	Whose Hand on the Tiller? Revisiting “Spatial Statistical Analysis and GIS”	49
	Michael F. Goodchild	
5	Spatial Interaction and Spatial Autocorrelation	61
	Manfred M. Fischer, Martin Reismann, and Thomas Scherngell	
Part II Pattern Analysis		
6	Second-Order Analysis of Point Patterns: The Case of Chicago as a Multi-center Urban Region	83
	Arthur Getis	
7	Second-Order Neighborhood Analysis of Mapped Point Patterns	93
	Arthur Getis and Janet Franklin	
8	A Class of Local and Global K Functions and Their Exact Statistical Methods	101
	Atsu Okabe, Barry Boots and Toshiaki Satoh	

9	Spatial Point Pattern Analysis of Plants	113
	Janet Franklin	

Part III Local Statistics

10	The Analysis of Spatial Association by Use of Distance Statistics	127
	Arthur Getis and J. Keith Ord	
11	Constructing the Spatial Weights Matrix Using a Local Statistic	147
	Arthur Getis and Jared Aldstadt	
12	Spatial Autocorrelation: A Statistician's Reflections	165
	J. Keith Ord	
13	Health Surveillance Around Prespecified Locations Using Case-Control Data	181
	Peter A. Rogerson	

Part IV Applications

14	Spatial Filtering in a Regression Framework: Examples Using Data on Urban Crime, Regional Inequality, and government Expenditures	191
	Arthur Getis	
15	Characteristics of the Spatial Pattern of the Dengue Vector, <i>Aedes aegypti</i>, in Iquitos, Peru	203
	Arthur Getis, Amy C. Morrison, Kenneth Gray, and Thomas W. Scott	
16	Spatial Filtering and Missing Georeferenced Data Imputation: A Comparison of the Getis and Griffith Methods	227
	Daniel Griffith	
17	Spatial Patterns of Fertility in Rural Egypt	235
	John R. Weeks	
	References	257
	Author Index	275
	Index	283
	Contributors	287