

Contents

<i>About the Editors</i>	viii
<i>About the Contributors</i>	ix
<i>Preface</i>	xiv
<i>Acknowledgements</i>	xxii

PART I

Methodological Aspects

1

- | | |
|--|-----|
| 1 Exploratory Data Mining Using Decision Trees in the Behavioral Sciences | 3 |
| JOHN J. McARDLE | |
| 2 CHAID and Earlier Supervised Tree Methods | 48 |
| GILBERT RITSCHARD | |
| 3 The Potential of Model-based Recursive Partitioning in the Social Sciences: Revisiting Ockham's Razor | 75 |
| JULIA KOPE, THOMAS AUGUSTIN, AND CAROLIN STROBL | |
| 4 Exploratory Data Mining with Structural Equation Model Trees | 96 |
| ANDREAS M. BRANDMAIER, TIMO VON OERTZEN,
JOHN J. McARDLE, AND ULMAN LINDENBERGER | |
| 5 Validating Tree Descriptions of Women's Labor Participation with Deviance-based Criteria | 128 |
| GILBERT RITSCHARD, FABIO B. LOSA, AND PAU ORIGONI | |

6 Exploratory Data Mining Algorithms for Conducting Searches in Structural Equation Modeling: A Comparison of Some Fit Criteria	150
GEORGE A. MARCOUIDES AND WALTER LEEH	
7 A Simulation Study of the Ability of Growth Mixture Models to Uncover Growth Heterogeneity	172
KEVIN J. GRIMM, NILAM RAM, MARIYA P. SHYKO, AND LAWRENCE L. LO	
8 Mining for Association Between Life Course Domains	190
RAFFAELLA PICCARRETA AND CEES H. ELZINGA	
9 Exploratory Mining of Life Event Histories	221
GILBERT RITSCHARD, RETO BÜRGIN, AND MATTHIAS STÜDER	
PART II	
Applications	255
10 Clinical versus Statistical Prediction of Zygosity in Adult Twin Pairs: An Application of Classification Trees	257
CAROL A. PRESCOTT	
11 Dealing with Longitudinal Attrition Using Logistic Regression and Decision Tree Analyses	282
JOHN J. McARDLE	
12 Adaptive Testing of the Number Series Test Using Standard Approaches and a New Decision Tree Analysis Approach	312
JOHN J. McARDLE	
13 Using Exploratory Data Mining to Identify Academic Risk among College Student-Athletes in the United States	345
THOMAS S. PASKUS	
14 Understanding Global Perceptions of Stress in Adulthood through Tree-Based Exploratory Data Mining	371
STACEY B. SCOTT, BRENDA R. WHITEHEAD, CINDY S. BERGEMAN, AND LINDSAY PITZER	

15 Recursive Partitioning to Study Terminal Decline in the Berlin Aging Study	405
PAOLO GHISLETTA	
16 Predicting Mortality from Demographics and Specific Cognitive Abilities in the Hawaii Family Study of Cognition	429
YAN ZHOU, KELLY M. KADLEC, AND JOHN J. McARDLE	
17 Exploratory Analysis of Effects of Prenatal Risk Factors on Intelligence in Children of Mothers with Phenylketonuria	450
KEITH E. WIDAMAN AND KEVIN J. GRIMM	
<i>Index</i>	471