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| | Descrizione fisica | 1 online resource (497 pages) |
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| | Altri autori (Persone) | KarlaftisMatthew G <br> ManneringFred L <br> AnastasopoulosPanagiotis Ch |
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| | Nota di contenuto | Section I Fundamentals 1. Statistical Inference I: Descriptive Statistics 2. Statistical Inference II: Interval Estimation, Hypothesis Testing, and Population Comparisons Descriptive Statistics Section II Continuous Dependent Variable Models 3. Linear Regression 4. Violations of Regression Assumptions Simultaneous Equation Models 6. Panel Data Analysis 7. Background and Exploration in Time Series 8. Forecasting in Time Series: Autoregressive Integrated Moving Average (ARIMA) Models and Extensions 9. Latent Variable Models 10. Duration Models Section III Count and Discrete-Dependent Variable Models11. Count Data Models 12. Logistic Regression 13. Discrete Outcome Models 14. Ordered Probability Models 15. Discrete/Continuous Models Section IV Other Statistical Methods 16. Random Parameters Models 17. Latent Class (Finite Mixture) Models 18. Bivariate and Multivariate Dependent Variable Models 19. Bayesian Statistical Methods |
| | Sommario/riassunto | Praise for the Second Edition: The second edition introduces an especially broad set of statistical methods As a lecturer in both transportation and marketing research, I find this book an excellent textbook for advanced undergraduate, Master's and Ph.D. students, |

covering topics from simple descriptive statistics to complex Bayesian models. It is one of the few books that cover an extensive set of statistical methods needed for data analysis in transportation. The book offers a wealth of examples from the transportation field. --The American Statistician Statistical and Econometric Methods for Transportation Data Analysis, Third Edition offers an expansion over the first and second editions in response to the recent methodological advancements in the fields of econometrics and statistics and to provide an increasing range of examples and corresponding data sets. It describes and illustrates some of the statistical and econometric tools commonly used in transportation data analysis. It provides a wide breadth of examples and case studies, covering applications in various aspects of transportation planning, engineering, safety, and economics. Ample analytical rigor is provided in each chapter so that fundamental concepts and principles are clear and numerous references are provided for those seeking additional technical details and applications. New to the Third Edition Updated references and improved examples throughout. New sections on random parameters linear regression and ordered probability models including the hierarchical ordered probit model. A new section on random parameters models with heterogeneity in the means and variances of parameter estimates. Multiple new sections on correlated random parameters and correlated grouped random parameters in probit, logit and hazard-based models. A new section discussing the practical aspects of random parameters model estimation. A new chapter on Latent Class Models. A new chapter on Bivariate and Multivariate Dependent Variable Models. Statistical and Econometric Methods for Transportation Data Analysis, Third Edition can serve as a textbook for advanced undergraduate, Masters, and Ph.D. students in transportation-related disciplines including engineering, economics, urban and regional planning, and sociology. The book also serves as a technical reference for researchers and practitioners wishing to examine and understand a broad range of statistical and econometric tools required to study transportation problems.