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References

Casella et al.: Statistical inference

Casella-Berger-2002

George Casella and Robert L. Berger. *Statistical inference*. Pacific Grove, CA: Thomson Learning, 2002. ISBN: 9780534243128.

Abstract: This book builds theoretical statistics from the first principles of probability theory. Starting from the basics of probability, the authors develop the theory of statistical inference using techniques, definitions, and concepts that are statistical and are natural extensions and consequences of previous concepts. This book can be used for readers who have a solid mathematics background. It can also be used in a way that stresses the more practical uses of statistical theory, being more concerned with understanding basic statistical concepts and deriving reasonable statistical procedures for a variety of situations, and less concerned with formal optimality investigations.

Collins et al.: New methods for the analysis of change

Collins-Sayer-2002

Linda M. Collins and Aline Sayer, eds. *New methods for the analysis of change. [based on a conference held in 1998 at The Pennsylvania State University, a follow-up to the Los Angeles conference Best Methods for the Analysis of Change]*. 2nd ed. Decade of behavior. Washington, DC: American Psychological Association, 2002. 442 pp. ISBN: 1557987548.

Ephrem Fernandez. *Anxiety, depression, and anger in pain: Research findings and clinical options*. Dallas, TX: Advanced Psychological Resources, 2002. ISBN: 978-0972316408.

Abstract: This book is about the many ways in which anxiety, depression, and anger can predispose a person to pain, trigger the pain, aggravate it, maintain it, in addition to being correlates or consequences of pain. These interactions are clearly illustrated and embellished with examples. Pain is described in terms of neurological signals, sensation, perception, cognition, and behavior, but with special reference to emotions, moods, and affective disorders. In each of the chapters on anxiety, depression, and anger, the author conveys the significance of emotional problems while also providing data on their prevalence and relationship to demographic factors. Underlying mechanisms are explored with keen attention to psychosocial and biochemical processes. Then, options are discussed for assessment and treatment. Psychological tests for anxiety, depression, and anger are pitted against one another to allow the selection of the best. Treatment strategies of both the psychological and pharmacological varieties are evaluated for effectiveness and side effects. Thus for anxiety, information is provided on tranquilizers as well as attention-diversion, thought-stopping, reappraisal, respiratory regulation, muscle relaxation, biofeedback, music, hypnosis, and massage. Depression treatment is described with reference to psychodynamic and cognitive therapies but with an in-depth analysis of whether antidepressant medications actually relieve pain or depression. For anger, a case is made for the novel integration of cognitive, behavioral, and experiential strategies. The final chapter succinctly summarizes all the main findings while also suggesting ideas for future study. The book is practical in its objectives to the very end. What gives it particular strength is the heavy reliance on empirical evidence and theory. In short, this book unravels the complex interactions among pain, anxiety, depression, and anger – consistently sounding its relevance to pain sufferers, pain clinicians, scholars, and students in this field.

Joel Hektner, Jennifer Schmidt, and Mihaly Csikszentmihalyi. *Experience sampling method: Measuring the quality of everyday life*. SAGE Publications, Inc., 2007. ISBN: 9781412984201. DOI: [10.4135/9781412984201](https://doi.org/10.4135/9781412984201).

Abstract: Experience Sampling Method: Measuring the Quality of Everyday Life is the first book to bring together the theoretical foundations and practical applications of this indispensable methodology. Authors Joel M. Hektner, Jennifer A. Schmidt, and Mihaly Csikszentmihalyi provide fascinating information for anyone interested in how people go about their daily lives. **Key Features:** Provides a step-by-step guide: In nontechnical prose, the book details the logistics of carrying out an Experience Sampling Method (ESM) study and guides the reader through every step of the process, from conceiving the research question to analyzing the data. In addition, a thorough treatment of the measurement of Csikszentmihalyi's flow describes all of the different ways in which flow can be measured. Includes real-life examples: This book gives readers useful tips to consider before implementing a study, based on real-life examples. It illustrates how the ESM has been used to address a diverse array of topics in social science research including the phenomenology of everyday life, gender differences, family relations, work experiences, cross-cultural differences and similarities, school experiences, and mental health. Offers a complete overview of the foundations for ESM: This is the first source to compile findings from a large and increasingly diverse research literature documenting the use of the ESM. A comprehensive overview is given of issues affecting reliability and validity of the method and empirical evidence of its psychometric properties. **Intended Audience:** This is a must-have resource for social and behavioral scientists who are studying the human experience in everyday life and need guidelines for how to validate and present their data. It can also be used in various advanced undergraduate and graduate research methods courses in the departments of Education, Educational Psychology, Psychology, Nursing, and Health.

Stefano M. Iacus. *Simulation and Inference for Stochastic Differential Equations*. Springer New York, 2008. DOI: [10.1007/978-0-387-75839-8](https://doi.org/10.1007/978-0-387-75839-8).

Helmut Lütkepohl. *New introduction to multiple time series analysis*. Berlin: Springer Berlin Heidelberg, 2005. 764 pp. ISBN: 978-3-540-27752-1. DOI: [10.1007/978-3-540-27752-1](https://doi.org/10.1007/978-3-540-27752-1).

Abstract: This reference work and graduate level textbook considers a wide range of models and methods for analyzing and forecasting multiple time series. The models covered include vector autoregressive, cointegrated, vector autoregressive moving average, multivariate ARCH and periodic processes as well as dynamic simultaneous equations and state space models. Least squares, maximum likelihood and Bayesian methods are considered for estimating these models. Different procedures for model selection and model specification are treated and a wide range of tests and criteria for model checking are introduced. Causality analysis, impulse response analysis and innovation accounting are presented as tools for structural analysis. The book is accessible to graduate students in business and economics. In addition, multiple time series courses in other fields such as statistics and engineering may be based on it. Applied researchers involved in analyzing multiple time series may benefit from the book as it provides the background and tools for their tasks. It bridges the gap to the difficult technical literature on the topic.

David P. MacKinnon. *Introduction to statistical mediation analysis*. Multivariate applications. Hoboken: Erlbaum Psych Press, 2008, p. 488. ISBN: 9780805864298. DOI: [10.4324/9780203809556](https://doi.org/10.4324/9780203809556).

Abstract: This volume introduces the statistical, methodological, and conceptual aspects of mediation analysis. Applications from health, social, and developmental psychology, sociology, communi-

cation, exercise science, and epidemiology are emphasized throughout. Single-mediator, multilevel, and longitudinal models are reviewed. The author's goal is to help the reader apply mediation analysis to their own data and understand its limitations. Each chapter features an overview, numerous worked examples, a summary, and exercises (with answers to the odd numbered questions). The accompanying downloadable resources contain outputs described in the book from SAS, SPSS, LISREL, EQS, MPLUS, and CALIS, and a program to simulate the model. The notation used is consistent with existing literature on mediation in psychology. The book opens with a review of the types of research questions the mediation model addresses. Part II describes the estimation of mediation effects including assumptions, statistical tests, and the construction of confidence limits. Advanced models including mediation in path analysis, longitudinal models, multilevel data, categorical variables, and mediation in the context of moderation are then described. The book closes with a discussion of the limits of mediation analysis, additional approaches to identifying mediating variables, and future directions. Introduction to Statistical Mediation Analysis is intended for researchers and advanced students in health, social, clinical, and developmental psychology as well as communication, public health, nursing, epidemiology, and sociology. Some exposure to a graduate level research methods or statistics course is assumed. The overview of mediation analysis and the guidelines for conducting a mediation analysis will be appreciated by all readers.

Library: QA278.2 .M29 2008.

Venables et al.: Modern applied statistics with S

Venables-Ripley-2002

W. N. Venables and B. D. Ripley. *Modern applied statistics with S*. Springer New York, 2002. DOI: [10.1007/978-0-387-21706-2](https://doi.org/10.1007/978-0-387-21706-2).