

Ivan Jacob Agaloos Pesigan

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References

Arbuckle: Full information estimation in the presence of incomplete data

Arbuckle-1996

James L. Arbuckle. "Full information estimation in the presence of incomplete data". In: *Advanced structural equation modeling*. Ed. by George A. Marcoulides and Randall E. Schumacker. 1996. DOI: [10.4324/9781315827414](https://doi.org/10.4324/9781315827414).

Collins et al.: Best methods for the analysis of change: Recent advances, unanswered questions, future directions

Collins-Horn-1991

Linda M. Collins and John L. Horn, eds. *Best methods for the analysis of change: Recent advances, unanswered questions, future directions*. Washington, DC: American Psychological Association, 1991. ISBN: 978-1-55798-113-4. DOI: [10.1037/10099-000](https://doi.org/10.1037/10099-000).

Abstract: The chapters making up this book represent a rich offering of current research on the analysis of change.

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Davidson et al.: Estimation and inference in econometrics Davidson-MacKinnon-1993

Russell Davidson and James G. MacKinnon. *Estimation and inference in econometrics*. New York, NY: Oxford University Press, 1993. ISBN: 9780195060119.

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Anthony Christopher Davison and David Victor Hinkley. *Bootstrap methods and their application*. Cambridge Series in Statistical and Probabilistic Mathematics. Cambridge and New York, NY, USA: Cambridge University Press, 1997. ISBN: 9780521573917. DOI: [10.1017/CB09780511802843](https://doi.org/10.1017/CB09780511802843).

Abstract: Bootstrap methods are computer-intensive methods of statistical analysis, which use simulation to calculate standard errors, confidence intervals, and significance tests. The methods apply for any level of modelling, and so can be used for fully parametric, semiparametric, and completely nonparametric analysis. This 1997 book gives a broad and up-to-date coverage of bootstrap methods, with numerous applied examples, developed in a coherent way with the necessary theoretical basis. Applications include stratified data; finite populations; censored and missing data; linear, nonlinear, and smooth regression models; classification; time series and spatial problems. Special features of the book include: extensive discussion of significance tests and confidence intervals; material on various diagnostic methods; and methods for efficient computation, including improved Monte Carlo simulation. Each chapter includes both practical and theoretical exercises. S-Plus programs for implementing the methods described in the text are available from the supporting website.

Library: QA276.8 .D38 1997.

Bradley Efron and Robert J. Tibshirani. *An introduction to the bootstrap*. Monographs on statistics and applied probability ; 57. New York: Chapman & Hall, 1993. ISBN: 9780412042317. DOI: [10.1201/9780429246593](https://doi.org/10.1201/9780429246593).

Abstract: Statistics is a subject of many uses and surprisingly few effective practitioners. The traditional road to statistical knowledge is blocked, for most, by a formidable wall of mathematics. The approach in *An Introduction to the Bootstrap* avoids that wall. It arms scientists and engineers,

as well as statisticians, with the computational techniques they need to analyze and understand complicated data sets.

Library: QA276.8 .E3745 1993.

Harvey: Forecasting, structural time series models and the Kalman filter

Harvey-1990

Andrew C. Harvey. *Forecasting, structural time series models and the Kalman filter*. Cambridge University Press, Feb. 1990. DOI: [10.1017/cbo9781107049994](https://doi.org/10.1017/cbo9781107049994).

Abstract: In this book, Andrew Harvey sets out to provide a unified and comprehensive theory of structural time series models. Unlike the traditional ARIMA models, structural time series models consist explicitly of unobserved components, such as trends and seasonals, which have a direct interpretation. As a result the model selection methodology associated with structural models is much closer to econometric methodology. The link with econometrics is made even closer by the natural way in which the models can be extended to include explanatory variables and to cope with multivariate time series. From the technical point of view, state space models and the Kalman filter play a key role in the statistical treatment of structural time series models. The book includes a detailed treatment of the Kalman filter. This technique was originally developed in control engineering, but is becoming increasingly important in fields such as economics and operations research. This book is concerned primarily with modelling economic and social time series, and with addressing the special problems which the treatment of such series poses. The properties of the models and the methodological techniques used to select them are illustrated with various applications. These range from the modelling of trends and cycles in US macroeconomic time series to an evaluation of the effects of seat belt legislation in the UK.

Kim et al.: State-space models with regime switching: Classical and Gibbs-sampling approaches with applications **Kim-Nelson-1999**

Chang-Jin Kim and Charles R. Nelson. *State-space models with regime switching: Classical and Gibbs-sampling approaches with applications*. The MIT Press, 1999. ISBN: 9780262277112. DOI: [10.7551/mitpress/6444.001.0001](https://doi.org/10.7551/mitpress/6444.001.0001).

Abstract: Both state-space models and Markov switching models have been highly productive paths for empirical research in macroeconomics and finance. This book presents recent advances in econometric methods that make feasible the estimation of models that have both features. One approach, in the classical framework, approximates the likelihood function; the other, in the Bayesian framework, uses Gibbs-sampling to simulate posterior distributions from data. The authors present numerous applications of these approaches in detail: decomposition of time series into trend and cycle, a new index of coincident economic indicators, approaches to modeling monetary policy uncertainty, Friedman's "plucking" model of recessions, the detection of turning points in the business cycle and the question of whether booms and recessions are duration-dependent, state-space models with heteroskedastic disturbances, fads and crashes in financial markets, long-run real exchange rates, and mean reversion in asset returns.

Library: HB135 .K515 1999.

Schafer: Analysis of incomplete multivariate data **Schafer-1997**

Joseph L. Schafer. *Analysis of incomplete multivariate data*. Chapman and Hall/CRC, Aug. 1997. ISBN: 9780367803025. DOI: [10.1201/9780367803025](https://doi.org/10.1201/9780367803025).

Abstract: The last two decades have seen enormous developments in statistical methods for incomplete data. The EM algorithm and its extensions, multiple imputation, and Markov Chain Monte Carlo provide a set of flexible and reliable tools from inference in large classes of missing-data problems. Yet, in practical terms, those developments have had surprisingly little impact on the way

most data analysts handle missing values on a routine basis. *Analysis of Incomplete Multivariate Data* helps bridge the gap between theory and practice, making these missing-data tools accessible to a broad audience. It presents a unified, Bayesian approach to the analysis of incomplete multivariate data, covering datasets in which the variables are continuous, categorical, or both. The focus is applied, where necessary, to help readers thoroughly understand the statistical properties of those methods, and the behavior of the accompanying algorithms. All techniques are illustrated with real data examples, with extended discussion and practical advice. All of the algorithms described in this book have been implemented by the author for general use in the statistical languages S and S Plus. The software is available free of charge on the Internet.