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Keynote Speech (5)-1

Multivariate time series analysis: brief review and recent developments

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Abstract

We start with a brief review of multivariate time series analysis, discussing challenges, model specification, and applications of available methods. Real examples are used to demonstrate empirical analysis. We then discuss recent developments in multivariate time series analysis. The topics introduced include various factor models, modeling multivariate count data, forecasting with many predictors, and multivariate volatility modeling. Pros and cons of various models and methods are discussed. If time permits, real data are used to demonstrate the developments and to highlight the need for further improvements.