

Reference List for the Course “Time Series Analysis”, Fall Semester 2010

The course is not based on a single book, but most of the material is standard and can be found in most books on time series analysis. The area of time series analysis is huge, and I have to make a selection of topics and detail of presentation.

Introductory books

- Brockwell, P.J. and Davis, R.A. (2002). Introduction to Time Series and Forecasting (2nd edition). Springer.
- Chatfield, C. (2004): The Analysis of Time Series: An Introduction (6th Edition). Chapman and Hall.
- Diggle, P.J. (1990). Time Series. A Biostatistical Introduction. Oxford University Press.

Books on a similar level as the course

- Brockwell, P.J. and Davis, R.A. (2009). Time Series. Theory and Methods (2nd edition). Springer.
- Fuller, W.A. (1996). Introduction to Statistical Time Series (2nd edition). Wiley.
- Hamilton, J.D. (1994). Time Series Analysis. Princeton University Press.
- Priestley, M.B. (1981). Spectral Analysis and Time Series. (Vol. 1: Univariate Series & Vol. 2 Multivariate Series, Prediction and Control). Academic Press.
- Shumway, R. H. and Stoffer, D. S. (2006). Time Series Analysis and its Applications: with R examples. Springer.

Books with emphasis on special topics

- Box, G.E., Jenkins, G.M. and Reinsel, G. C. (2008). Time Series: Forecasting and Control (4th edition). Prentice Hall.
New edition of the classic 1970 book by the first 2 authors which made ARIMA modeling popular.
- Percival, D. B. and Walden, A. T. (1993). Spectral Analysis for Physical Applications: Multitaper and Conventional Univariate Techniques. Cambridge University Press.
- Percival, D. B. and Walden, A. T. (2000). Wavelet Methods for Time Series Analysis. Cambridge University Press.
- Prado, R. and West, M. (2010). Time Series, Modeling, Computation and Inference. Chapman and Hall.
Presents Bayesian methods.
- Tong, H. (1993). Non-linear Time Series: A Dynamical System Approach. Oxford University Press.
- Tsay, R. S. (2010). Analysis of Financial Time Series (3rd edition). Wiley.

H.-R. Künsch, October 1, 2010