

10146008-6 Financial Econometrics (6ECTS)

Summer term 2023

Instructor: Lars Winkelmann.

Lectures/tutorials: Fr: 10.15am to 11.45am and 12.15 to 1.45pm in HS 104.

Course website: all material and instructions will be posted on blackboard. You can register for this course via Campus Management.

Course description

This course introduces master students to financial statistics. Selected topics include extreme value theory, volatility modeling, high-frequency statistics, large dimensional covariance matrices and forecast evaluation. The course requires a solid background in statistics and mathematics and some knowledge of economics and finance. Examples drawn from risk management and portfolio management will highlight the practical relevance of the statistical methods. The main objectives are to give students a background that will enable them to understand and critically appraise applied work on financial issues, and to provide students with some practical experience in working with financial data.

Organizational issues and grading

Our first session is April 21st at 10.15am in HS104. We will follow some selected parts of the book "Analysis of Financial Time Series" (Tsay) and "Financial Econometrics: Models and Methods" (Linton) which will be available as pdf-files on blackboard. In addition, we will cover some topics that go beyond the content of standard text books and require reading some recent journal articles. Those articles will be available on blackboard too.

A homework assignment will be posted in early May. The 2h-final exam will take place July 7, 10.00 am, HS104.

Prerequisites

Students are required to have taken the master-level econometrics class. Having taken a time series course or taking it concurrently is recommended but not required. Students are assumed to be familiar with basic concepts in linear algebra, analysis, probability theory and statistical inference. Basic programming abilities in R are required to be able to solve the homework.