

# Financial Time Series – Information

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TMS088/MSA410 – March 2018

## 1 Idea

- Mathematical *introduction to time series* with applications in finance.
- Last financial course (of 4 for the Bachelor program)
  - Knowledge of mathematics and the content of the other courses is assumed.
  - Especially it is assumed that the students are familiar with the introductory chapter in the lecture notes.

## 2 Structure

- 4 hours of *lectures* per week (Annika Lang)
  - Tuesday, 10.00 – 11.45 in *KE*
  - Thursday, 13.15 – 15.00 in *Pascal*
- 4 hours of *exercise classes* per week (Andreas Petersson)
  - Friday, 8.00 – 11.45 in *MVH12*
- *Exception:*
  - Tuesday, 20/3 15.00, KE & Friday, 23/3 10.00 Pascal: lecture
  - Thursday, 22/3 13.15 MVH12: exercise class
- 2 *projects* with implementation of taught methods (bonus points)
  - *No* “click the button” course.
  - Implement more or less from scratch.
  - Goal: understand the algorithms.
  - Work in groups of (up to) 2.
  - Up to 4 bonus points per project.
  - Project 1 is due on *Monday, 23/4*.
  - Project 2 is due on *Monday, 7/5*.
  - Read the details on how to hand in carefully on the project description.
- The final *exam* is on Friday, 1/6, 14.00 – 18.00.
  - The exam counts 7.5 hp.
  - Bonus points from the projects are valid only for the first regular exam on 1/6.
  - You are allowed to bring 4 pages (e.g., 2 pages double-sided) of *handwritten* notes and a simple calculator.

- It covers the content of the lectures and the exercise classes.
- The (first) re-exam is on TBA.

### 3 Formalities

- *Course homepage:* <http://www.math.chalmers.se/Stat/Grundutb/CTH/tms088/1718>
- *Student representatives:* Elias Kanyab Orvar (GU), Jacob Lindbäck (MPENM), Justin Lundgren (IE), James Pålsson (GU), Rami Sheik (IE), Aditya Sridhara (MPENM)

### 4 Literature

- A list of used and recommended books can be found on the homepage.
- For the first part, mainly Brockwell/Davis “Introduction to Time Series and Forecasting” is relevant.
- Lecture notes are provided in parallel and will be updated once a week after the lecture on Thursday.
- Comments and corrections for the lecture notes are always welcome to improve them.