Part I

Organizational Matters

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- ▶ Modul: IN2004
- ▶ Name: "Efficient Algorithms and Data Structures II"
          "Effiziente Algorithmen und Datenstrukturen II"
- ▶ ECTS: 8 Credit points
- ▶ Lectures:
  - ▶ 4 SWS
    Wed 12:15-13:45 (Room 00.13.009A)
    Fri 10:15-11:45 (MS HS3)
- ▶ Webpage: http://www14.in.tum.de/lehre/2017SS/ea/

The Lecturer

- Harald Räcke
- Email: raecke@in.tum.de
- Room: 03.09.044
- Office hours: (per appointment)

Tutorials

- Tutor:
  - Richard Stotz
  - stotz@tum.de
  - Room: 03.09.057
  - per appointment
- Room: 03.11.018
- Time: Wed 16:00–17:30

Assessment

- In order to pass the module you need to pass an exam.

- Exam:
  - 2.5 hours
  - Date will be announced shortly.
  - There are no resources allowed, apart from a hand-written piece of paper (A4).
  - Answers should be given in English, but German is also accepted.

Assessment

- Assignment Sheets:
    - An assignment sheet is usually made available on Wednesday on the module webpage.
    - Solutions have to be handed in in the following week before the lecture on Wednesday.
    - You can hand in your solutions by putting them in the right folder in front of room 03.09.020.
    - Solutions have to be given in English.
    - Solutions will be discussed in the subsequent tutorial.
    - The first one will be out on Wednesday, 3 May.

1 Contents

Part 1: Linear Programming

Part 2: Approximation Algorithms

2 Literatur

📄 V. Chvatal:
Linear Programming,
Freeman, 1983

📄 R. Seidel:
Skript Optimierung, 1996

📄 D. Bertsimas and J.N. Tsitsiklis:
Introduction to Linear Optimization,
Athena Scientific, 1997

📄 Vijay V. Vazirani:
Approximation Algorithms,
Springer 2001

- David P. Williamson and David B. Shmoys:
  The Design of Approximation Algorithms,
  Cambridge University Press 2011

- G. Ausiello, P. Crescenzi, G. Gambosi, V. Kann, A. Marchetti-Spaccamela, and M. Protasi:
  Complexity and Approximation,
  Springer, 1999