Part I

Organizational Matters

Part I

Organizational Matters

- ▶ Modul: IN2004
- ▶ Name: "Efficient Algorithms and Data Structures II"
           "Effiziente Algorithmen und Datenstrukturen II"
- ▶ ECTS: 8 Credit points
- ▶ Lectures:
  - ▶ 4 SWS
    Wed 10:15–11:45 (Room 00.13.009A)
    Fri 10:15–11:45 (MS HS3)

The Lecturer

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

Tutorials

- Tutor:
  - Omar AbdelWanis
  - omar.abdelwanis@tum.de
  - per appointment
- Room: 03.11.018
- Time: Mon 14:00–16:00

Assessment

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

▶ Exam:
  ▶ 2.5 hours
  ▶ 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 Monday on the module webpage.
  - The first one will be out on Monday, 22 April.

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