Part I

Organizational Matters

Part I

Organizational Matters

- Modul: IN2011
- Name: "Parallel Algorithms"
  "Parallele Algorithmen"
- ECTS: 8 Credit points
- Lectures:
  - 4 SWS
    Tue 8:30–10:00 (Room 00.13.009A)
    Thu 8:30–10:00 (Room 00.13.009A)
- Webpage: http://www14.in.tum.de/lehre/2013WS/pa/

Part I

Organizational Matters

- Modul: IN2011
- Name: “Parallel Algorithms”
  “Parallele Algorithmen”
- ECTS: 8 Credit points
- Lectures:
  - 4 SWS
    Tue 8:30–10:00 (Room 00.13.009A)
    Thu 8:30–10:00 (Room 00.13.009A)
- Webpage: http://www14.in.tum.de/lehre/2013WS/pa/

Part I

Organizational Matters

- Modul: IN2011
- Name: “Parallel Algorithms”
  “Parallele Algorithmen”
- ECTS: 8 Credit points
- Lectures:
  - 4 SWS
    Tue 8:30–10:00 (Room 00.13.009A)
    Thu 8:30–10:00 (Room 00.13.009A)
- Webpage: http://www14.in.tum.de/lehre/2013WS/pa/

Part I

Organizational Matters

- Modul: IN2011
- Name: “Parallel Algorithms”
  “Parallele Algorithmen”
- ECTS: 8 Credit points
- Lectures:
  - 4 SWS
    Tue 8:30–10:00 (Room 00.13.009A)
    Thu 8:30–10:00 (Room 00.13.009A)
- Webpage: http://www14.in.tum.de/lehre/2013WS/pa/

Part I

Organizational Matters

- Modul: IN2011
- Name: “Parallel Algorithms”
  “Parallele Algorithmen”
- ECTS: 8 Credit points
- Lectures:
  - 4 SWS
    Tue 8:30–10:00 (Room 00.13.009A)
    Thu 8:30–10:00 (Room 00.13.009A)
- Webpage: `http://www14.in.tum.de/lehre/2013WS/pa/`

- Required knowledge:
  - IN0001, IN0003
    “Introduction to Informatics 1/2”
    “Einführung in die Informatik 1/2”
  - IN0007
    “Fundamentals of Algorithms and Data Structures”
    “Grundlagen: Algorithmen und Datenstrukturen” (GAD)
  - IN0011
    “Basic Theoretic Informatics”
    “Einführung in die Theoretische Informatik” (THEO)
  - IN0015
    “Discrete Structures”
    “Diskrete Strukturen” (DS)
  - IN0018
    “Discrete Probability Theory”
    “Diskrete Wahrscheinlichkeitstheorie” (DWT)
  - IN2003
    “Efficient Algorithms and Data Structures”
    “Effiziente Algorithmen und Datenstrukturen”

- Required knowledge:
  - IN0001, IN0003
    “Introduction to Informatics 1/2”
    “Einführung in die Informatik 1/2”
  - IN0007
    “Fundamentals of Algorithms and Data Structures”
    “Grundlagen: Algorithmen und Datenstrukturen” (GAD)
  - IN0011
    “Basic Theoretic Informatics”
    “Einführung in die Theoretische Informatik” (THEO)
  - IN0015
    “Discrete Structures”
    “Diskrete Strukturen” (DS)
  - IN0018
    “Discrete Probability Theory”
    “Diskrete Wahrscheinlichkeitstheorie” (DWT)
  - IN2003
    “Efficient Algorithms and Data Structures”
    “Effiziente Algorithmen und Datenstrukturen”

- Required knowledge:
  - IN0001, IN0003
    “Introduction to Informatics 1/2”
    “Einführung in die Informatik 1/2”
  - IN0007
    “Fundamentals of Algorithms and Data Structures”
    “Grundlagen: Algorithmen und Datenstrukturen” (GAD)
  - IN0011
    “Basic Theoretic Informatics”
    “Einführung in die Theoretische Informatik” (THEO)
  - IN0015
    “Discrete Structures”
    “Diskrete Strukturen” (DS)
  - IN0018
    “Discrete Probability Theory”
    “Diskrete Wahrscheinlichkeitstheorie” (DWT)
  - IN2003
    “Efficient Algorithms and Data Structures”
    “Effiziente Algorithmen und Datenstrukturen”

- Required knowledge:
  - IN0001, IN0003
    “Introduction to Informatics 1/2”
    “Einführung in die Informatik 1/2”
  - IN0007
    “Fundamentals of Algorithms and Data Structures”
    “Grundlagen: Algorithmen und Datenstrukturen” (GAD)
  - IN0011
    “Basic Theoretic Informatics”
    “Einführung in die Theoretische Informatik” (THEO)
  - IN0015
    “Discrete Structures”
    “Diskrete Strukturen” (DS)
  - IN0018
    “Discrete Probability Theory”
    “Diskrete Wahrscheinlichkeitstheorie” (DWT)
  - IN2003
    “Efficient Algorithms and Data Structures”
    “Effiziente Algorithmen und Datenstrukturen”

- Required knowledge:
  - IN0001, IN0003
    “Introduction to Informatics 1/2”
    “Einführung in die Informatik 1/2”
  - IN0007
    “Fundamentals of Algorithms and Data Structures”
    “Grundlagen: Algorithmen und Datenstrukturen” (GAD)
  - IN0011
    “Basic Theoretic Informatics”
    “Einführung in die Theoretische Informatik” (THEO)
  - IN0015
    “Discrete Structures”
    “Diskrete Strukturen” (DS)
  - IN0018
    “Discrete Probability Theory”
    “Diskrete Wahrscheinlichkeitstheorie” (DWT)
  - IN2003
    “Efficient Algorithms and Data Structures”
    “Effiziente Algorithmen und Datenstrukturen”

- Required knowledge:
  - IN0001, IN0003
    “Introduction to Informatics 1/2”
    “Einführung in die Informatik 1/2”
  - IN0007
    “Fundamentals of Algorithms and Data Structures”
    “Grundlagen: Algorithmen und Datenstrukturen” (GAD)
  - IN0011
    “Basic Theoretic Informatics”
    “Einführung in die Theoretische Informatik” (THEO)
  - IN0015
    “Discrete Structures”
    “Diskrete Strukturen” (DS)
  - IN0018
    “Discrete Probability Theory”
    “Diskrete Wahrscheinlichkeitstheorie” (DWT)
  - IN2003
    “Efficient Algorithms and Data Structures”
    “Effiziente Algorithmen und Datenstrukturen”

- Required knowledge:
  - IN0001, IN0003
    “Introduction to Informatics 1/2”
    “Einführung in die Informatik 1/2”
  - IN0007
    “Fundamentals of Algorithms and Data Structures”
    “Grundlagen: Algorithmen und Datenstrukturen” (GAD)
  - IN0011
    “Basic Theoretic Informatics”
    “Einführung in die Theoretische Informatik” (THEO)
  - IN0015
    “Discrete Structures”
    “Diskrete Strukturen” (DS)
  - IN0018
    “Discrete Probability Theory”
    “Diskrete Wahrscheinlichkeitstheorie” (DWT)
  - IN2003
    “Efficient Algorithms and Data Structures”
    “Effiziente Algorithmen und Datenstrukturen”

The Lecturer

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

Tutorials

- Tutors:
  - Chris Pinkau
  - pinkau@in.tum.de
  - Room: 03.09.057
  - Office hours: Tue 13:00–14:00
- Room: 03.11.018
- Time: Fri 12:15–13:45

Assignment sheets

- In order to pass the module you need to pass a 3 hour exam

Assessment

- Assignment Sheets:
  - An assignment sheet is usually made available on Tuesday on the module webpage.
  - Solutions have to be handed in in the following week before the lecture on Tuesday.
  - You can hand in your solutions by putting them in the right folder in front of room 03.09.052.
  - Solutions will be discussed in the subsequent tutorial on Friday.

Assessment

- Assignment Sheets:
  - An assignment sheet is usually made available on Tuesday on the module webpage.
  - Solutions have to be handed in in the following week before the lecture on Tuesday.
  - You can hand in your solutions by putting them in the right folder in front of room 03.09.052.
  - Solutions will be discussed in the subsequent tutorial on Friday.

Assessment

- Assignment Sheets:
  - An assignment sheet is usually made available on Tuesday on the module webpage.
  - Solutions have to be handed in in the following week before the lecture on Tuesday.
  - You can hand in your solutions by putting them in the right folder in front of room 03.09.052.
  - Solutions will be discussed in the subsequent tutorial on Friday.

Assessment

- Assignment Sheets:
  - An assignment sheet is usually made available on Tuesday on the module webpage.
  - Solutions have to be handed in in the following week before the lecture on Tuesday.
  - You can hand in your solutions by putting them in the right folder in front of room 03.09.052.
  - Solutions will be discussed in the subsequent tutorial on Friday.

Assessment

- Assignment Sheets:
  - An assignment sheet is usually made available on Tuesday on the module webpage.
  - Solutions have to be handed in in the following week before the lecture on Tuesday.
  - You can hand in your solutions by putting them in the right folder in front of room 03.09.052.
  - Solutions will be discussed in the subsequent tutorial on Friday.

1 Contents

1 Contents

2 Literatur


Tom Leighton:
Introduction to Parallel Algorithms and Architecture: Arrays, Trees, Hypercubes,
Morgan Kaufmann: San Mateo, CA, 1992


Joseph JaJa:
An Introduction to Parallel Algorithms,
Addison-Wesley: Reading, MA, 1997


Jeffrey D. Ullman:
Computational Aspects of VLSI,
Computer Science Press: Rockville, USA, 1984


Selim G. Akl.:
The Design and Analysis of Parallel Algorithms,
Prentice Hall: Englewood Cliffs, NJ, 1989