

STUDENT CHAPTER OF SIAM MAGDEBURG

chapters

Heidelberg, Trier and Magdeburg) met for a joint two-day scientific conference at the University of Heidelberg. The scientific presentations covered a wide range of topics: presentations on nonlinear programming, parameter estimation in control, design of optimal experiments and application examples at



Generation of adaptive grids

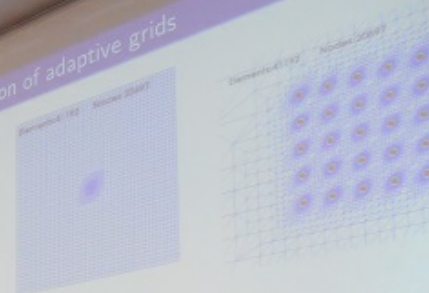


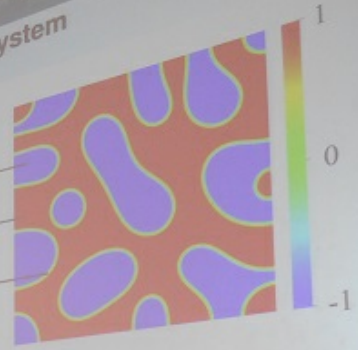
Table: Grid information

Level	No. of Elements	No. of Nodes	Smallest edge (μm)
7	7,760	3,981	5.625E-03
8	8,052	4,127	2.8125E-03
9	8,832	4,517	1.40625E-03
10	10,988	5,595	7.03125E-04
11	17,888	9,045	3.51562E-04
12	42,612	21,407	1.75781E-04

Binary Cahn-Hilliard System

Two-Phase Structure

pure phase A
pure phase B
interface



- $\Omega \subset \mathbb{R}^d$, $d \in \{2, 3\}$
- $u = u(x, t)$: concentration

















Generation of adaptive grids

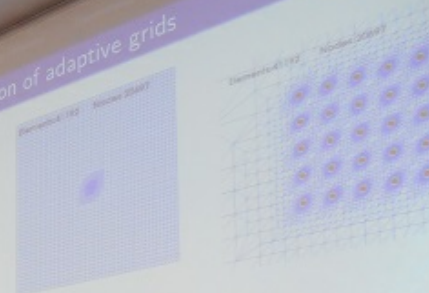


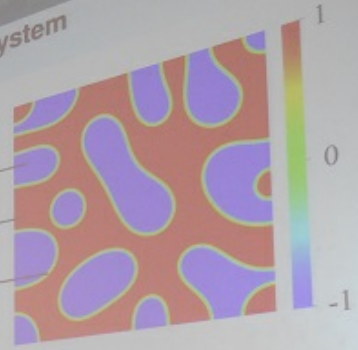
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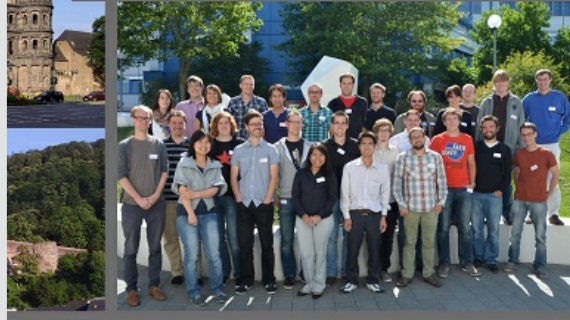




the world's most famous ruin, the Heidelberg Castle, followed by an
day ended after a further round of lectures with imaginative
Student Chapters.

: p.m.

Heidelberg · Magdeburg · Trier



Meeting of the SIAM Student Chapters

Simulation & Optimization

Friday, August 16

- 09:00 **Christine Edman** :
Solution Methods for Expensive Optimization Problems
- 09:30 **Benjamin Unger**:
Nonlinear Model Reduction in an Optimal Control Setting
- 10:00 **Matthias Voigt**:
The Singular Linear-Quadratic Optimal Control Problem
for Differential-Algebraic Systems
- 10:30 **Coffee Break**
- 11:00 **Michael Jung**:
On Integer Relaxations for Mixed-Integer Optimal Control
- 11:30 **Heinz Zorn**:
Optimization of the Fiber Orientation in
Fiber-Reinforced Composites
- 12:00 **Leonard Wirsching**:
Efficient Numerics for Nonlinear Model Predictive Control
- 12:30 **Lunch**
- 13:30 **Outlook: SIAM Student Chapters in Germany**
- 14:00 **Closing Remarks**

Magdeburg, Trier

2013

· Heidelberg University



Universität Trier



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Topics: Error Estimates and Multigrid

Dynamics Using Discontinuous

ice Under Local Volatility

Problems

rol Setting

Problem for Differential-Algebraic

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Reinforced Composites

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News

15.02.2024

Seminar Prof. Dr.-Ing. Daniel Juhre

06.11.2023

Nerd Nite 2023

22.09.2023

Naturkundemuseum

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Nerd Nite Magdeburg



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FOR DYNAMICS OF COMPLEX
TECHNICAL SYSTEMS
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