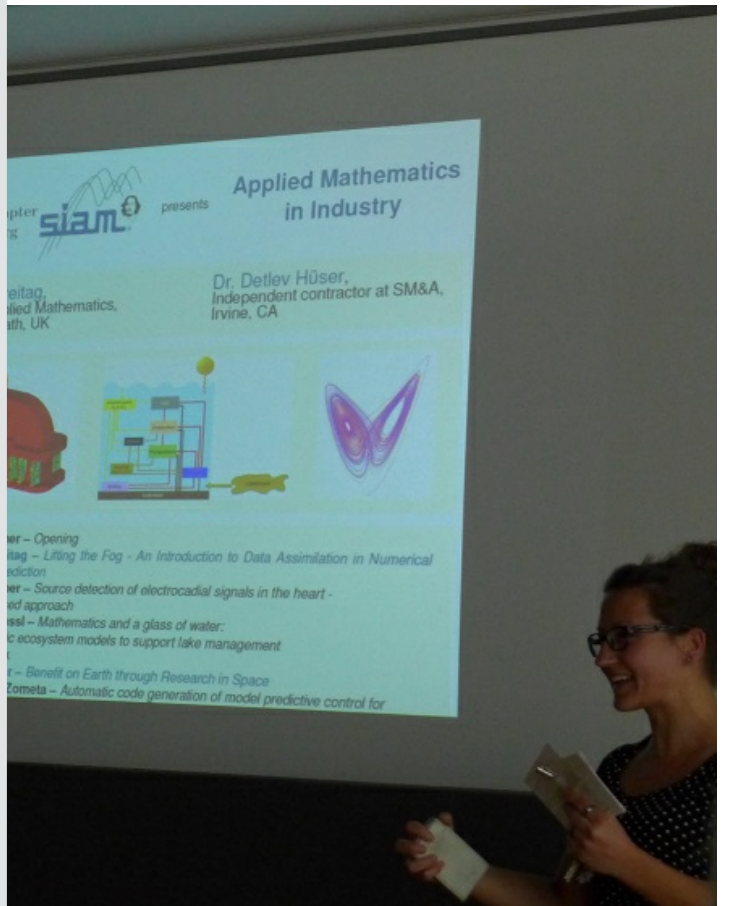


STUDENT CHAPTER OF SIAM MAGDEBURG

"I Mathematics in Industry"







Mathematics and a glass of water:
Using aquatic ecosystem models to support lake management

Marieke Franzl et al.



dh creative services

Benefit on Earth through Research in Space
Magdeburg, June 9th, 2015

Dr. Delfav Huisson

© 2015 dh creative services

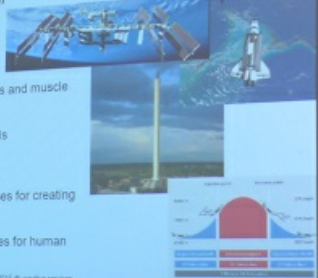
Motivation for Research in Microgravity

Microgravity is a unique property of orbiting space vehicles being in a free fall condition

- No sedimentation
- No convection
- Body fluid distribution, Bone loss and muscle atrophy
- Activities of gravity sensitive cells

Benefit on Earth

- Learn mechanisms and processes for creating new materials
- Development of countermeasures for human physiology and health care



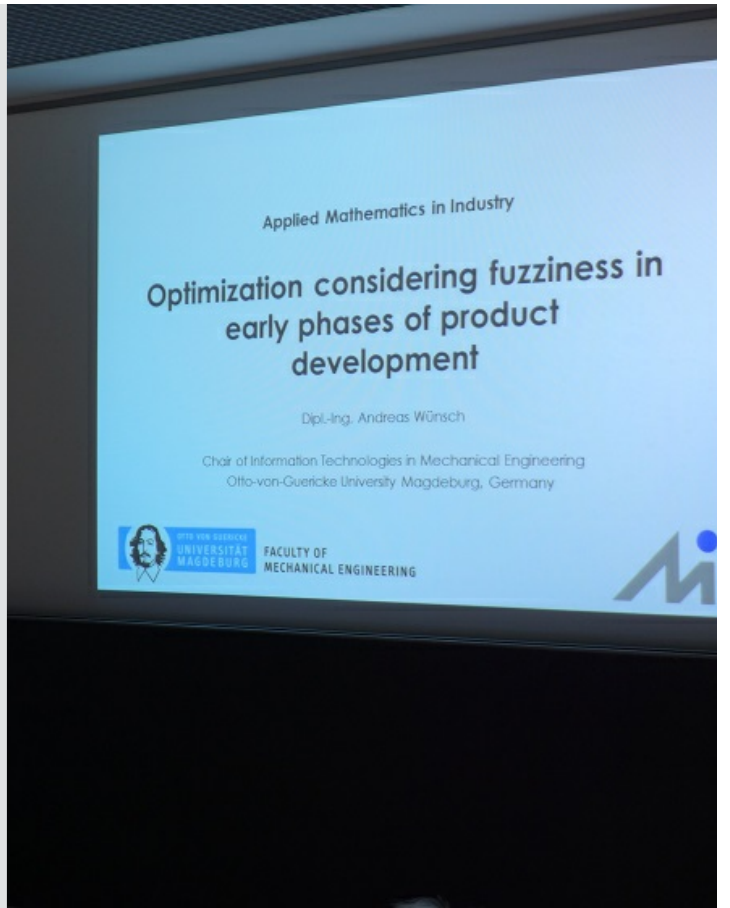
Control: basic principle



1. Obtain state
2. Predict and optimize
3. Apply "optimal" input

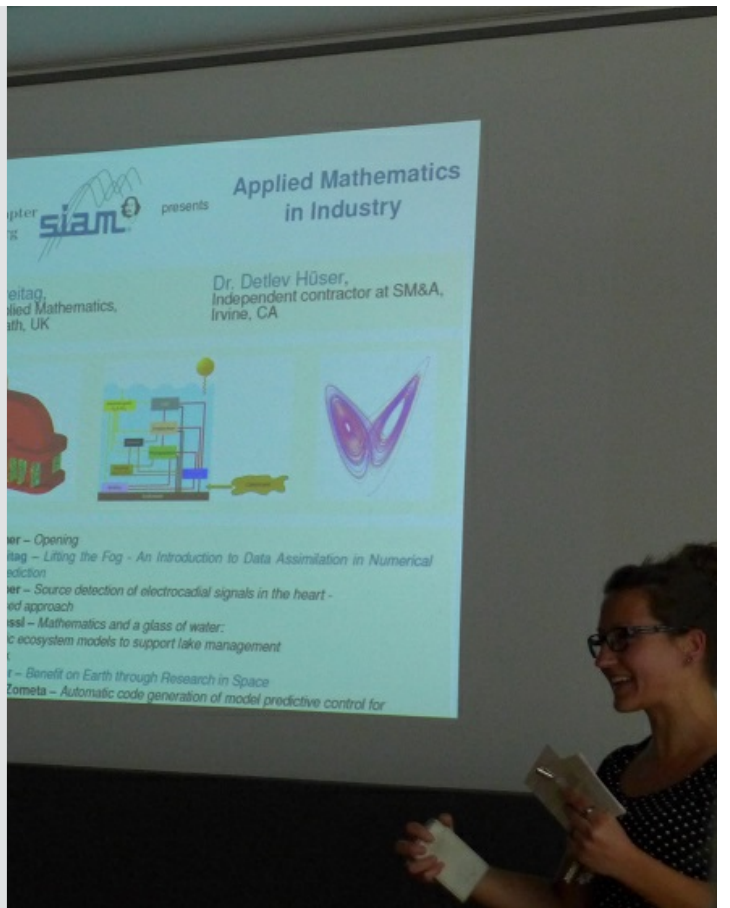
repeated prediction/optimization
simple
tionally expensive
llenging







orwärts



vorwärts




vorwärts

Fit of delay function
Shortest distance in graph
Compare results

Motivation, The heart chamber

- Cardiac tissue
- Rhythmic heart beat
- Cardiac excitation



Weber Institut für Mathematische Optimierung June 9, 20

orwärts



TEMPERATURE 2011-09-17 13:15:00

Mathematics and a glass of water:
Using aquatic ecosystem models to support lake management

Marieke Fitzl et al.

HELMHOLTZ
CENTRE FOR
ENVIRONMENTAL
RESEARCH - UFZ

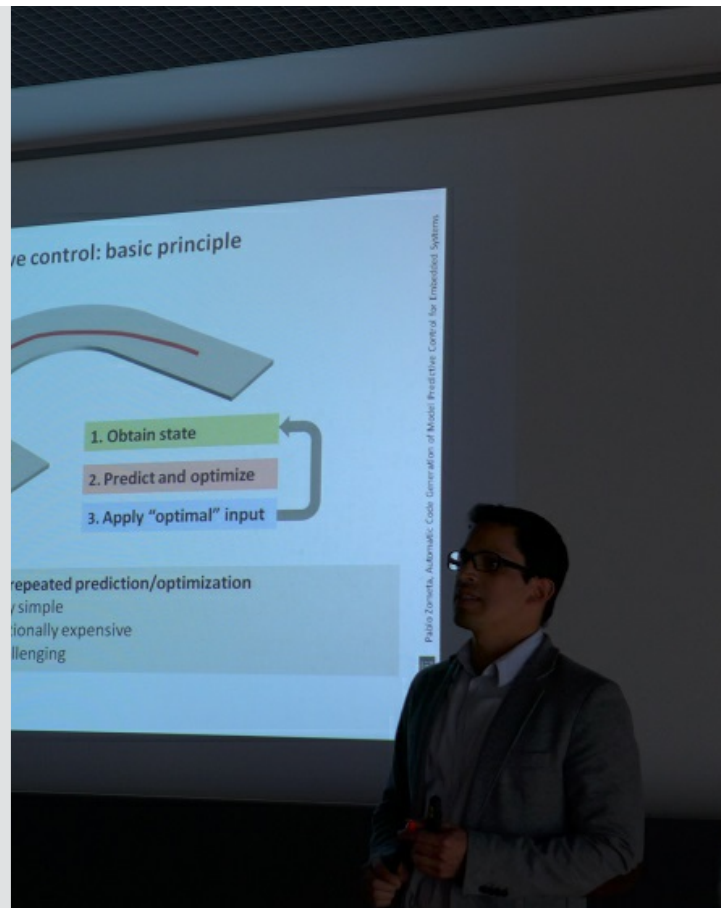
orwärts



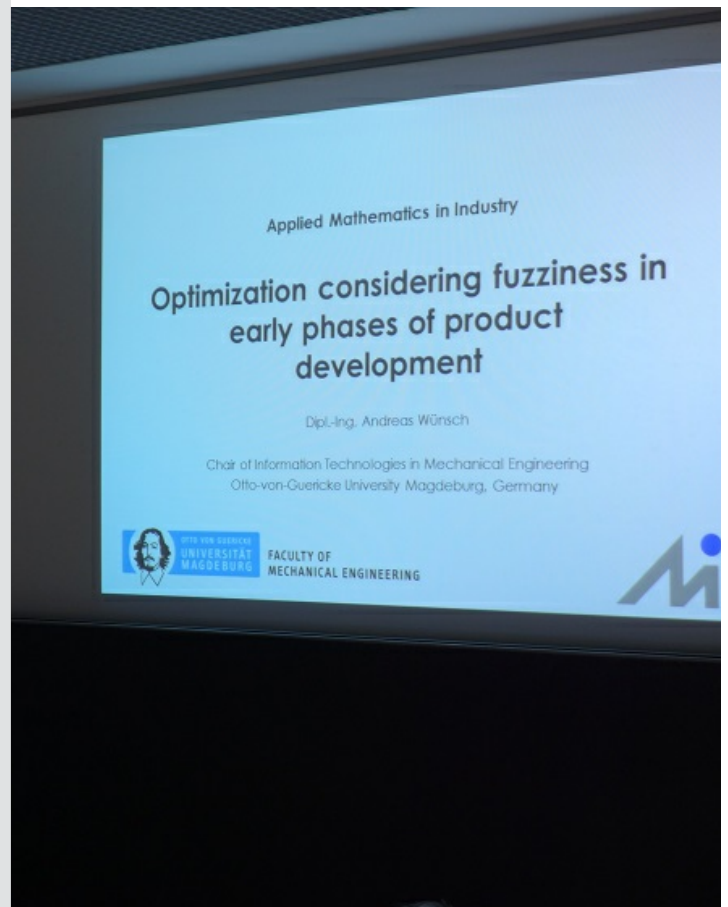
orwärts



orwärts



vorwärts



vorwärts



summer workshop on **9th of June**. It focuses on the applications of
nalyze real world applications. The workshop will start at **1 p.m.** at the

Prigogine V0.05.2+3

and two guest speakers:

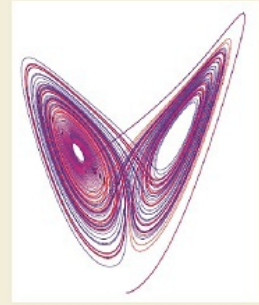
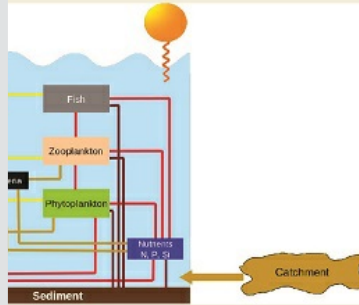
University of Bath, UK) and

CA, and Owner of dh creative services, Syke, Germany).

ments. The program including abstracts can be found below. If you
"Orante Da Nino Dolce Vita" please let us now > siamchapter@ovgu.de

presents **Applied Mathematics
in Industry**

Dr. Detlev Hüser,
Independent contractor at SM&A,
Irvine, CA



- *An Introduction to Data Assimilation in Numerical
of electrocardial signals in the heart -*

*d a glass of water:
o support lake management*

*rough Research in Space
ode generation of model predictive control for*

considering fuzziness in early phases of product

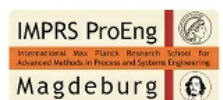
09, 2015

inar room Prigogine V0.05.2+3
r. 1 • Magdeburg

chapter.ovgu.de



MAX PLANCK INSTITUTE
FOR DYNAMICS OF COMPLEX
TECHNICAL SYSTEMS
MAGDEBURG



ation in Numerical Weather

heart - A graph based approach

ic ecosystem models to support lake

control for embedded systems

ses of product development

News

15.02.2024

Seminar Prof. Dr.-Ing. Daniel Juhre

06.11.2023

Nerd Nite 2023

22.09.2023

Naturkundemuseum

> more...

Nerd Nite Magdeburg

Become a member



MAX PLANCK INSTITUTE
FOR DYNAMICS OF COMPLEX
TECHNICAL SYSTEMS
MAGDEBURG

