2-Day Course 2014

ROBUST OPTIMAL CONTROL

Lehrstuhl für Systemtheorie,

Regelungstechnik und Optimierung

Institut für Mikrosystemtechnik (IMTEK)

Albert-Ludwigs-Universität Freiburg

Georges-Köhler-Allee 102

79110 Freiburg

Germany

# Public Transportation

Public transportation in Freiburg is all run by VAG (Freiburger Verkehrs AG). The tram, bus, and subway system all have the same tickets. A one-way ticket within the city costs 2,20 EU. A cheaper option if you are planning on taking multiple trips is to buy 2x4-FahrtenKarte. This costs 15,90 EU and gives you 2 tickets with 4 rides possible on each. Tickets can be bought on buses, or at ticket machines around the city.

# Internet

You can access the internet via eduroam if you have a password. For those who do not have eduroam, individual passwords will be distributed.

# Eating out

On Wednesday and Thursday (Sep 3 & 4) we have booked tables at the Solar Center, where everyone can have lunch at own cost. The menu changes daily but there are usually two warm menus as well as a salad bar and sweets for 5 - 10 Euro per meal.

# Contact information

Should you encounter any problems please feel free to contact:

 Boris Houska: +49-152-37193969

 Moritz Diehl: +49-152-22928584

 Savannah Cook: +49-157-52598659

|  |  |
| --- | --- |
|   | **Wednesday 03.09** |
| 9:00 – 9:10 | Introduction |
| 9:10 – 10:05  | Convex Robust Optimization |
| 10:05 – 11:00 | Nonlinear Min-Max Optimization |
| 11:00 – 11:30 | Coffee Break |
| 11:30 – 12:30 | Approximate Robust Optimal Control |
| 12:30-14:00 | Lunch Break |
| 14:00 – 14:30 | Interval Calculus |
| 14:30 – 15:30 | ODE Integration (Mario Villanueva) |
| 15:30 – 16:00 | Coffee Break |
| 16:00 – 17:00 | MC++ Exercise |
|  |  |  |

# Schedule

|  |  |
| --- | --- |
|  | **Thursday 04.09** |
| 9:00 – 10:30 | CVXPY Course (Steven Diamond) |
| 10:30 – 11:00 | Coffee Break |
| 11:00 – 12:00 | Exercises on Robust Optimal Control |
| 12:00 – 12:30 | Global Optimization |
| 12:30 – 14:00 | Lunch Break |
| 14:00 – 15:00 | Branch and Lift Methods |
| 15:00 – 15:30 | Coffee Break |
| 15:30 – 16:00 | Wrap up/Discussion |
| 16:15 | End |

# List of Participants

|  |  |  |
| --- | --- | --- |
| Alessio Artoni | University of Pisa | alessio.artoni@ing.unipi.it |
| Simon Bartels | University of Freiburg | bartelss@tf.uni-freiburg.de |
| Joschka Boedecker | University of Freiburg | jboedeck@informatik.uni-freiburg.de |
| Sergiy Bogomolov | University of Freiburg | bogom.s@gmail.com |
| Joan Bordo | University of Freiburg | bordoy@informatik.uni-freiburg.de |
| Adrian Buerger | University of Applied Science, Karlsruhe | adrian.buerger@hs-karlsruhe.de |
| Steven Diamond | Stanford University | stevend2@stanford.edu |
| Prof. Moritz Diehl | University of Freiburg | moritz.diehl@imtek.uni-freiburg.de |
| Dimitar Dimitrov | INRIA France | dimitar.dimitrov@inria.fr |
| Marco Gabiccini | University of Pisa | m.gabiccini@ing.unipi.it |
| Friedrich Hagedorn | University of Freiburg | friedrich.hagedorn@imtek.de  |
| Ines Hamann | Hochschule Konstanz | Ines.Hamann@htwg-konstanz.de  |
| Greg Horn | University of Freiburg | gregmainland@gmail.com |
| Boris Houska | University of Freiburg | bhouska@sjtu.edu.cn  |
| Jonas Koenemann | University of Freiburg | jonas.koenemann@yahoo.de |
| Dimitrios Kouzoupis | University of Freiburg | dkouzoup@student.ethz.ch |
| Thomas Lampe | University of Freiburg | tlampe@informatik.uni-freiburg.de |
| Hector Mendoza | University of Freiburg | heist.mendoza@gmail.com |
| Adeleh Mohammadi | KU Leuven | Adeleh.Mohammadi@esat.kuleuven.be |
| Rien Quirynen | University of Freiburg | rien.quirynen@esat.kuleuven.be |
| Michael Rottmaier | University of Freiburg | michael.rottmaier@math.uni-freiburg.de  |
| Dieter Schuler | Hochschule Konstanz | dischule@htwg-konstanz.de |
| Azamat Shakhimardanov | KU Leuven | azamat.shakhimardanov@student.kuleuven.be |
| Mario Villanueva | Imperial College London | mev10@ic.ac.uk |
| Mauel Watter | University of Freiburg | watterm@informatik.uni-freiburg.de |
| Ralf Wimmer | University of Freiburg | wimmer@informatik.uni-freiburg.de |
| Leonore Winterer | University of Freiburg | winterel@informatik.uni-freiburg.de |
| Mario Zanon | University of Freiburg | mario.zanon@imtek.uni-freiburg.de  |