

Advanced algorithms for traffic prediction and control

37th International Summer School
of Automatic Control
Grenoble, France
September, 12-16, 2016

<http://www.gipsa-lab.fr/summerschool/auto2016/>



Scientific Chair: Carlos CANUDAS-DE-WIT, GIPSA-Lab, Grenoble, France

Local Organizer: Antoneta Iuliana BRATCU, GIPSA-Lab, Grenoble, France

Speakers: Carlos CANUDAS-DE-WIT (CNRS-GIPSA-lab, Grenoble, France)
Roberto HOROWITZ (University of California at Berkeley, USA)
Alain KIBANGO (GIPSA-lab, Grenoble, France)
Lyudmila MIHAYLOVA (University of Sheffield, U.K.)
Markos PAPAGEORGIOU (University of Crete, Greece)
Samitha SAMARANAYAKE (Cornell University, USA)
Martin TREIBER (Technische Universität Dresden, Germany)
Henk WYMEERSCH (Chalmers University of Technology, Sweden)

Speakers from industry: Thomas BAUDEL (IBM, Paris, France)
Denis JACQUET (Karrus, Grenoble, France)
Joan ROCA, Aurore REMY (Aimsun, Paris, France)



Advanced algorithms for traffic prediction and control

37th International Summer School of Automatic Control
September, 12-16, 2016, Grenoble, France

Context and motivation

Facing an increasingly complex traffic, optimal exploitation of existing infrastructure is a challenging problem. Control systems tools can bring here innovative and well-performing solutions, thanks also to new technologies involving a multitude of sensors and actuators. This Summer School aims at presenting the main mathematical tools which allow modelling, predicting and controlling the traffic, starting with the classical ones to the most advanced ones, including optimal routing and cooperative ITS. To this end, domain experts will be present to share their expertise and cutting-edge research results.

Organization:

The school will consist of a series of surveys, lectures and research talks taught in English, completed by a full day dedicated to industrial presentations and demonstrations of operational tools, among which the Grenoble Traffic Lab (GTL).

Audience:

The Summer School is mainly intended to PhD students, researchers and scholars in control and traffic engineering, and applied mathematics, being meanwhile open to industrial participants. Basic knowledge in automatic control and mathematics will be useful.

About Grenoble:

Capital of the French Alps, with about 500 000 residents and 60 000 students, Grenoble is surrounded by the well-known mountain ranges: Chartreuse, Vercors and Belledonne. Grenoble can be easily reached by plane from two airports: Lyon Saint-Exupery (LYS) or Geneva Cointrin (GVA Switzerland). From LYS, a bus shuttle reaches Grenoble's Railway Station in 1 hour (24 shuttles per day). From GVA, a bus shuttle (2 hours) or a train is available. By train, frequent services are also available from Paris (3 hours TGV, 8 per day) and from Lyon (1 hour by train).

Deadlines: ***Pre-registration:*** **01.07.2016**
 Registration: **20.07.2016**

Registration Fees: (including access to lectures, accommodation, lunches and Gala Dinner)

| | |
|--|---------------|
| Students: | 300 € |
| Academics and French participants with EPST affiliation: | 500 € |
| Industry participants and French participants with EPIC affiliation: | 1000 € |
| CNRS: | FREE |