Auction-Based Strategy Planning for Cooperative Vehicles

Stefanie Manzinger

Technische Universität München

January 31, 2017
Cooperative driving offers diverse benefits, e.g.:

- Improvement of traffic flow,
- Improvement of safety.

Cooperative vehicles must agree on a collaborative driving strategy ⇒ e.g. using auction-based algorithms.
The main principle of auctions:

- Some agents offer bids with distinct costs,
- Negotiation of bids takes place between all participants until agreement.

**Task:**

- Literature research to auction-based algorithms and their application in the field of cooperative driving,
- Evaluation and comparison of the different methods.