



Decentralized Optimization of Vehicle Route Planning – A Cross-City Comparative Study

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General Problem and Content

- Autonomous vehicles future in our society
- Vehicle Connectivity



Description of the Specific Human-cyberphysical System Problem

- System optimal routes
- User equilibrium
 - Selfish vs. altruism
- Connected Routes



The Challenges of Reaching a Functional System

- Local and global objectives
- Enforcement policies
- Differing Companies and connectedness
- Traffic Optimization - EPOS



The Technical Problem and the Research Setting

- Can increasing the altruism of traffic agents lead to positive traffic effects related to reduced trip times?
- If yes, what is the level of altruism necessary for observing such positive effects?
- Which are the city attributes and characteristics that determine whether such positive effects are observed?



Future Research

- More cities
- Machine Learning
 - Specify origin destination matrices
- Environmental cost
- EPOS
 - Needs to be reconfigured to be able to handle the correct number of cars