Game-theoretic Multi-Agent Reinforcement Learning Simulation of Traffic

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Abstract— In this project we aim to explore the application of multi-agent reinforcement learning for traffic management. By doing small traffic simulations with multiple agents representing vehicles, the project seeks to analyze their interactions from a game-theoretic perspective. Agents learn and adapt their driving strategy through repeated interactions with other agents and the environment. The focus will be on developing small-scale traffic systems using multi-agent reinforcement learning and analyzing the resulting dynamics.

Index terms—multi-agent reinforcement learning, traffic simulation, game theory

I. Introduction

Traffic bla bla ...

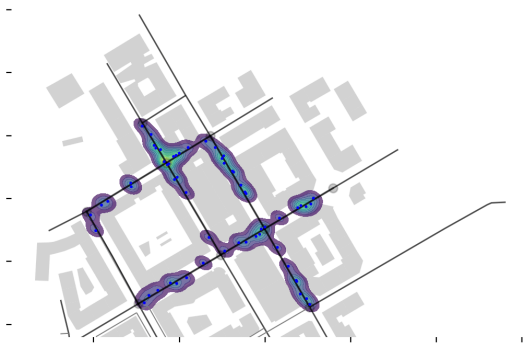

Figure 1: Traffic simulation

References