# Pricing and Routing in Traffic Networks and Logistics

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**Abstract:** Intelligent route planning is a key ingredient in traffic and logistics systems. We want to utilize the available traffic or logistics network in such a way that the total network load is minimized or the throughput is maximized.

This lecture deals with the mathematical aspects of these optimization problems from the viewpoint of network flow theory and scheduling. We will give an overview on our recent work on improved traffic guidance policies based on macroscopic optimization models and toll policies, and also report on optimizing ship traffic on the Kiel Canal via a combination of routing and scheduling. The latter is a project in cooperation with the German Federal Waterways and Shipping Administration.

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