## Seminar **Optimierung im öffentlichen Verkehr**

Themen (Stand: 21.05.2019)

Nr.	Paper	Betreuer	Student
1	A Parametric Description of Cities for the Normative Analysis of Transport Systems	RB	Berenike Masing
2	A Simulation-Based Optimization Framework for Urban Transportation Problems	RB	Aljoscha Rudawski
3	An eigenmodel for iterative line planning, timetabling and vehicle scheduling in public transportation	RB	Sarah Burchert
4	Design of a Demand-Responsive Transit System	RB	Maja Hellmann
5	Development, Implementation (Pilot) and Evaluation of a Demand Responsive Transport System		Alexander Gottschick
6	Models for railway timetable optimization: Applicability and applications in practice	NL	Felix Thoma
7	Schedule-Based Integrated Intercity Bus Line Planning via Branch-and-Cut	NL	Yizhou Jiang
8	Do regular timetables help to reduce delays in tram networks? It depends!	NL	Mara Nehring
9	A branch-and-bound approach for robust railway timetabling	NL	Thomas Nagel
10	Exact and heuristic approaches to the robust periodic event scheduling problem	NL	Thomas Simonis
11	Rules of thumb: practical online-strategies for delay management	NL	Constantin Wodrich
12	The max-plus algebra approach to railway timetable design	NL	Lilli Leifheit
13	An adaptive large neighborhood search heuristic for the Electric Vehicle Scheduling Problem	JK	Bastian Schröpf
14	Planning of feeding station installment for electric urban public mass-transportation system	JK	Erik Müller Johanna Sebastian
15	Electric bus fleet size and mix problem with optimization of charging infrastructure	JK	Christian Burdea Yannic Niedenzu
16	Implementation Schemes for Electric Bus Fleets at Depots with Optimized Energy Procurements in Virtual Power Plant Operations	NK	Helene von Pezold
17	Smart Grid Integration of Electric Buses: Implementation of a Uni- and Bidirectional Charging Infrastructure		Helena Rapprich
18	City Bus Powertrain Comparison: Driving Cycle Variation and Passenger Load Sensitivity Analysis	NK	Gina Genseler
19	Optimal recharging scheduling for urban electric buses: A case study in Davis		Nina Schwarm

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Nr.	Paper	Betreuer	Student
20	Real-world performance of battery electric buses and their life-cycle benefits with respect to energy consumption and carbon dioxide emissions	NK	Max Schubert
21	A cost-benefit analysis of alternatively fueled buses with special considerations for V2G technology		Moritz Hubel
22	A data-driven time supplements allocation model for train operations on high-speed railways	NK	Maximilian Kerner
23	Train Delay Prediction Systems: A Big Data Analytics Perspective		Chris Steden

## **Betreuer:**

- RB Ralf Borndörfer
- NL Niels Lindner
- JK Jens Kasten
- NK Natalia Kliewer