Dagstuhl Seminar

Dynamic Traffic Models in Transportation Science July 7-12

Monday, July 8

9.00 – 10.00	Introduction Talks (1- minute talks)
10.00 – 10.30	Coffee break
10.30 – 11.45	**Review Talk – Hong K. Lo** **Titel:** tba **Abstract:** tba
12.00 – 13.00	Lunch
13.00 – 15.45	Break
15.45 – 17.00	**Review Talk – Chiwei Yan** **Titel:** tba **Abstract:** tba
17.00 – 18.00	Open Problem Session
18.00	Dinner

Tuesday, July 9

9.00 – 10.15	**Review Talk – Neil Olver** **Titel:** tba **Abstract:** tba
10.15 – 10.45	Coffee break
10.45 – 12.00	Contributed talks • Katharina Eickhoff *Some open problems in freight train scheduling* • Andres Fielbaum *Optimising public transport networks that integrate on-demand mobility* • Gunnar Flötteröd *Strategic freight transport models with both cooperative and competitive behavior*
12.00 – 13.00	Lunch
13.00 – 16.15	Break
16.15 – 17.30	**Review Talk – Martin Gross** **Titel:** tba **Abstract:** tba
17.30 – 18.00	Open Problem Session and Discussion
18.00	Dinner

Wednesday, July 10

9.00 – 10.15	**Review Talk – Terry L. Friesz** **Titel:** *The History and Likely Future of Dynamic User Equilibrium* **Abstract:** In this presentation we review what has been learned about fixed and elastic demand user equilibrium in a dynamic setting over the last decade. We also discuss the challenges posed by extensions to consider mixed autonomous vehicle (AV) and human-driven vehicle (HDV) flow. We make conjectures about algorithmic innovations and the role of digital twins.
10.15 – 10.45	Coffee break
10.45 – 12.00	Contributed talks • Lukas Graf *Networkloading, Flow Decomposition and Tolls for Dynamic Flows* • Marc Schröder *Tolls for Nash Flows over Time* • Ravi Seshadri *Congestion tolling: dollars vs tokens*
12.00 – 13.00	Lunch
13.00 – 17.30	Social Event Hike
18.00	Dinner either on the hike or in Dagstuhl

Thursday, July 11

9.00 – 10.15	Contributed talks • Takamasa Iryo *Establishing cooperation in an evolutionary environment: towards an efficient sharing of transport resources in communities* • Song Gao A *Recursive Logit Model for Vacant Ride-Sourcing Vehicle Routing Behavior* • Koki Satsukawa *Game-theoretic analysis of user behaviour in reserving transport services*
10.15 – 10.45	Coffee break
10.45 – 12.00	Contributed talks • Roberto Cominetti /Nico Stier-Moses /Marco Scarsini /Marc Schröder *Ordinary and prophet planning under uncertainty in Bernoulli congestion games* • Martin Hoefer *Algortihms for financial networks* • Saif Jabari *On cyberattacks in traffic*
12.00 – 13.00	Lunch
13.00 – 13.10	Group Photo
13.10 – 16.00	Break
16.00 – 16.50	Contributed talks • Tobias Harks *A unified flow model for DTA* • Roberto Cominetti /Nico Stier-Moses /Marco Scarsini /Marc Schröder *Convergence of Large Atomic Congestion Games*
17.00 – 18.00	Open Problem Session and Discusson
18.00	Dinner

Friday, July 12

9.00 – 10.15	Contributed talks • Max Klimm *Optimizing Throughput and Makespan of Queuing Systems by Information Design* • Martin Strehler/ Daniel Schmand *On the Price of Anarchy in Packet Routing Games with FIFO* • *Jannik Matuschke Controlling and Identifying Solutions in Combinatorial Optimization*
10.15 – 10.45	Coffee break
10.45 – 11.45	Final Discussion
12.00 – 13.00	Lunch and Departure