MFTS&VIMOS 2022 Programme Schedule

Wednesday, November 30, 2022

10:00	**Registration and Reception** Venue of Symposium: Sächsische Aufbaubank – SAB Pirnaische Straße 9 01069 Dresden		
10:30 – 12:00	**Workshop:** How to integrate human aspects into traffic modeling and simulations? – Social contextualization of motorway and urban traffic systems (Dr. phil. Sandra Buchmüller and Dipl.-Ing. Susanne Wunsch, TU Dresden)		
12:00 – 13:00	**Registration, Coffee & Snack**		
13:00 – 13:15	**Welcome & Introduction** (Prof. Dr. Meng Wang, TU Dresden)		
13:15 – 13:30	**Welcome address** (Univ.-Prof. Dr.-Ing. Regine Gerike, TU Dresden)		
13:30 – 13:50	**Special guest: Saxony State Ministry for Economic Affairs, Labor and Transport**		
13:50 – 14:50	**Keynote** (Prof.dr.ir. Serge Hoogendoorn, TU Delft)		
14:55 – 16:10	**MFTS Session 1.1** Traffic Control in Conventional Traffic **(Big Hall)**	**MFTS Session 2.1** New Mobility Systems **(Meeting Room 1)**	**VIMOS Session 1** *(in German)* **(Meeting Room 2)**
14:55 – 15:20	Dynamic cycle time in traffic signal of cyclic max-pressure control - Razi Zoabi and **Jack Haddad** **Technion Sustainable Mobility and Robust Transportation (T-SMART) Laboratory**	A stop-less bus service paradigm using autonomous modular buses - **Zaid Saeed Khan** and Mónica Menéndez **New York University**	Autonomes Fahren im ÖPNV – zum neuen Rechtsrahmen für autonome öffentliche Verkehrsangebote und offene Regulierungsfragen - **Emanuele Leonetti** **Verband Deutscher Verkehrsunternehmen e.V.**
15:20 – 15:45	A deep reinforcement learning approach for dynamic traffic light control with transit signal priority - **Tobias Nousch**, Runhao Zhou, Django Adam, Angelika Hirrle and Meng Wang **TU Dresden**	An integrated ride-matching model for shared mobility on demand services - Kerem S. Tuncel, Haris N. Koutsopoulos and **Zhenliang Ma** Northeastern University **KTH Royal Institute of Technology**	Teleoperiertes Fahren und Remote Control via 5G – Vision oder nahe Realität - Dr. Thomas Otto, Dr. Jörg Holfeld **Fraunhofer-Institut für Verkehrs- und Infrastruktursysteme IVI**
15:45 – 16:10	AI-based multi-class traffic model oriented to freeway traffic control - **Binjaku Kleona**, C. Pasquale and S. Sacone **University of Geona**	A new model for electric vehicle mobility and energy consumption in urban traffic networks - Carlos Canudas-de-Wit, Martin Rodriguez-Vega and **Giovanni De Nunzio** **CNRS, GIPSA-Lab** **Rond/point de Lechangeur de Soliaye**	Auswirkungen von verschiedenen Angebots-Nachfrage-Verhältnissen auf die Serviceeffizienz von Ridepooling-Systemen: Eine Simulationsstudie - Dennis Harman, Bernhard Friedrich **TU Braunschweig**
16:10 – 16:25	**BREAK**		

16:25 – 17:40	**MFTS Session 1.2** **(Big Hall)**	**MFTS Session 2.2** Traffic Control in Conventional Traffic **(Meeting Room 1)**	**VIMOS Session 1.2** *(in German)* **(Meeting Room 2)**
16:25 – 16:50	On how traffic signals impact the fundamental diagrams of urban roads - **Chao Zhang**, Yechen Li, Neha Arora and Carolina Osorio **Google Research** Hec Montréal	Tradable credit scheme for multimodal urban network - **Louis Batzer**, Mostafa Ameli, Ludovic Leclercq and Jean-Patrick Lebacque **Université Gustave Eiffel**	So gestaltet Baden-Württemberg klimafreundliche Mobilität mit offenen Mobilitätsdaten – MobiData BW als verkehrsübergreifende Integrationsplattform für mobilitätsrelevante Daten - **Manuel Hautzinger** **NVBW – Nahverkehrsgesellschaft Baden-Württemberg mbH (NVBW)**
16:50 – 17:15	Modeling the potential impacts of AVs on pollutant emissions under different scenarios in zalazone test track - Zelalem Birhanu Biramo and **Anteneh Aferwork Mekoonen** **Budapest University of Technology and Economics**	Data-driven methods for identifying travel conditions based on traffic and weather characteristics - Georgia Ayfantopoulou, **Evangelos Mintsis**, Zisis Maleas, Evangelos Mitsakis, Josep Maria Salanova Grau, Vassilis Mizaras and Panagiotis Tzenos **Centre for Research and Technology Hellas, Thessaloniki**	Die Mobilithek – Die neue Online-Plattform für Mobilitätsdaten in Deutschland - **Peter Lubrich** **Bundesanstalt für Straßenwesen (BASt)**
17:15 – 17:40	Multi-objective anticipatory mixed fuel green vehicle routing of connected and automated vehicles - **Saba Sabet** and Bilal Farooq **Ryerson University**	Automatic design of optimal actuated traffic signal control with transit signal priority - **Mahmud Keblawi** and Tomer Toledo **Israel Institute of Technology**	Umweltsensorik im Signalgeber – Neue Möglichkeiten bei bestehender Infrastruktur - **Michael Preuss** **SWARCO FUTURIT Verkehrssignalsysteme Ges.m.b.H.**
18:00	**DINNER** Venue of Dinner Event: Luisenhof Dresden Bergbahnstraße 8 01324 Dresden		

Thursday, December 01, 2022

09:00 – 10:00	**Keynote** (Prof. Dr. Ludovic Leclercq, Université Gustave Eiffel)		
10:05 – 11:20	**MFTS Session 1.3** Connected and Automated Vehicles (Part 1) **(Big Hall)**	**MFTS Session 2.3** Demand and Traffic Management (Part 1) **(Meeting Room 1)**	**VIMOS Session 1.3** *(in German)* **(Meeting Room 2)**
10:05 – 10:30	Introducing the platoon fundamental diagram for automated vehicles based on worldwide observations - **Michail A. Makridis** and Anastasios Kouvelas **IVT, ETH, Zurich**	GPS-based route choice models for traffic management - **Anna Danielsson**, David Gundlegard, Clas Rydergren and Nikolaos Tsanakas **Lindköping University**	Nutzung automatisierter Fahrzeuge für die Ermittlung makroskopischer Kennwerte im Urbanen Netzwerk - Sefa Yilmaz-Niewerth, Prof. Dr.-Ing. Bernhard Friedrich **TU Braunschweig**
10:30 – 10:55	Distributed ordering and optimazation for intersection management with connected and automated vehicles - Francesco Vitale and **Claudio Roncoli** **Aalto University**	A macroscopic approach for the on-time arrival problem - **Charalambos Menelaou**, Stelios Timotheou, Panayiotis Kolios and Christos G. Panayiotou **University of Cyprus**	Auf dem Weg zu datengetriebener Echtzeitsimulation im Verkehrsmanagement - **Dr. Martin Hartmann** **Aimsun**
10:55 – 11:20	A lateral positioning strategy for connected and automated vehicles in lane-free traffic - Ioannis Faros, Venkata Karteek Yanumula, Panagiotis Typaldos, **Ioannis Papamichail** and Markos Papageorgiou **TU Crete** Ningbo University	Delineation of traffic analysis zone for public transportation OD martix estimation based on socio-spatial practices - **S. M. Hassan Mahdavi Moghaddam**, Mostafa Ameli, K. Rao Ramachandra and Geetam Tiwari **VEDECOM mobiLAB, Université Gustave Eiffel** Department of Civil Engineering, IIT Delhi	Optimierte Rettungsmobilität mit Infrastrukturunterstützung im 5G-Reallabor - **Joachim Schade**
11:20 – 11:35	**BREAK**		
11:35 – 12:50	**MFTS Session 1.4** Connected and Automated Vehicles (Part 2) **(Big Hall)**	**MFTS Session 2.4** Demand and Traffic Management (Part 2) **(Meeting Room 1)**	**VIMOS Session 1.4** *(in German)* **(Meeting Room 2)**
11:35 – 12:00	A cooperative game approach to discretionary lane changing of connected autonomous vehicles - **Seiran Heshami** and Lina Kattan **University of Calgary**	Multi-vehicle stochastic fundamental diagram consistent with transportations systems theory - **Giulio E. Cantarella**, E. Cipriani, A. Gemma, O. Giannattasio and L. Mannini **University of Salemo** University of Roma Tre	Auf dem Weg zu einer Datenbasis für die mikroskopische Modellierung des urbanen Wirtschaftsverkehrs - **Lasse Bienzeisler** **TU Braunschweig**
12:00 – 12:25	Traffic-based control of truck platoons on freeways - A. Bozzi, **Tommy Chaanine**, S. Graffione, C. Pasquale, R. Sacile, S. Sacone and S. Siri **University of Geona**	Analysis of the relationship between string stability and hysteresis in traffic flow - **Giovanni Albano**, Konstantinos Mattas, Riccardo Donà, Y. He and Biagio Ciuffo **Uni Systems, European Commission Joint Research Centre, Seidor, Italy**	Voll grafikfähige Verkehrs-Informationstafeln des LASuV als Erstanwendung des Leistungsspektrums der VAMOS4-Verkehrsmanagement-Architektur - Matthias Körner, Sebastian Pape, Henning Jeske **TU Dresden**

12:25 – 12:50	Simulation methods for mixed legacy-autonomous mainline train operations - **Emily J. Morey**, R. E. Wilson and K. Galvin **University of Bristol**	A stochastic programming method for OD estimation using LBSN check-in data - **Qinglong Lu**, Moeid Quarashi and Constantinos Antoniou **TU Munich** TU Dresden	C-ITS Anwendungen für ÖPNV und Straßenverkehr im Projekt LOGIN Hannover - Czogalla, Olaf, Naumann Sebastian
12:50 – 13:50	**LUNCH**		
13:50 – 15:30	**MFTS Session 1.5** Connected and Automated Vehicles (Part 3) **(Big Hall)**	**(Meeting Room 1)** **Spotlight Session:** Challenges of traffic and transport management in practice (Change methods and ideas with real transport practitioners) Panelists: Dr. Christian Leitzke, Landesamt für Straßenbau und Verkehr (Saxony authority for road construction and transport), Christian Gassel, Dresdner Verkehrsbetriebe AG (Dresden transport company), … (*Other panelists will be announced later*)	**MFTS & VIMOS Session** *(in German & English)* **(Meeting Room 2)**
13:50 – 14:15	Perception tasks in automated driving: A conceptual model for microscopic traffic simulation - **Postigo Ivan**, Johan Olstam and Clas Rydergren **Linköping University**		Using Drone video data analysis to have a more precise understanding of the spatiotemporal characteristics of traffic on highways - **Milad Abarghooie** **SCHWIETERING Ingenieure GmbH**
14:15 – 14:40	Impact of car-following and controller formulations on motion planning of autonomous vehicles - **Narayana Raju** and Haneen Farah **TU Delft**		MPC-based trajectory planning and tracking model - **Yuxia Yuan**, Xinwei Wang, Riender Happee and Meng Wang **TU Delft** TU Dresden
14:40 – 15:05	GLOSA system with uncertain green and red signal phases - **Panagoitis Typaldos**, Petros Koutsas, Ioannis Papamichail and Markos Papageorgiou **TU Crete**		**BREAK**
15:05 – 15:30	Can dedicated lanes for automated vehicles on urban roads improve traffic efficiency? - **Gabriel Tilg**, S. Krause, P. N. Stueger and K. Bogenberger **TU Munich**		
15:30 – 15:45	**BREAK**		**(Meeting Room 2)** **MOTUS Workshop:** (14:50 – 17:50)

15:45 – 17:30	**MFTS Session 1.6** Connected and Automated Vehicles (Part 4) **(Big Hall)**		Learning from Covid: How can we predict mobility behavior in the face of disruptive events? (Dipl-Ing. Maximilian Bäumler, TU Dresden & M.Sc. Paul Papendieck, Universität Kassel)
15:45 – 16:10	Shared autonomous vehicles implementation for a disrupted public transport network - **Sara Jaber**, Hassan Mahdavi and Neila Bhouri **VEDECOM, Université Gustave Eiffel**		
16:10 – 16:35	Towards developing socially-compliant automated vehicles: State of the practice, expert expectation, and a conceptual framework - **Yongqi Dong** and Haneen Farah **TU Delft**	**(Meeting Room 1)**	
16:35 – 17:00	Exploring the effectiveness of CACC vs. multianticipative ACC in heterogenous platoons - **Riccardo Donà**, Konstantinos Mattas, Giovanni Albano and Biagio Ciuffo **Uni Systems, European Commission Joint Research Centre, Seidor, Italy**	**MFTS Scientific Committee Closed Meeting** (16:00-17:30)	
17:00 – 17:25	Towards safe, efficient and co-operative decision-making for CAVs in mixed autonomy: An attention-enhanced graphic reinforcement learning approach - **Zirui Li**, Hailong Gong, Runhao Zhou, Qi Liu, Chao Lu and Jianwei Gong **Beijing Institute of Technology** TU Dresden		
18:00	**END**		

Friday, December 02, 2022

09:00 – 10:00	**Keynote** (Prof. Dr. rer. nat. MA Marc Timme, TU Dresden)		
10:05 – 11:45	**MFTS Session 1.7** Traffic Flow and Simulation **(Big Hall)**	**MFTS Session 2.5** Traffic Control in Automated Traffic **(Meeting Room 1)**	**MFTS Session 3** User Behavior and Safety **(Meeting Room 2)**
10:05 – 10:30	The importance of fine-grained dynamics in the origin-destination matrix estimation - **Yiolanda Englezou**, Stelios Timotheou and Christos G. Panayiotou **University of Cyprus**	Prioritization of an automated shuttle for V2X public transport at a signalized intersection – a real-life demonstration - **Maik Halbach**, Daniel Wesemeyer, Lukas Merk, Jan Lauermann, Daniel Heß and Robert Kaul **DLR – German Aerospace Center**	Reachability-based confidence-aware probabilistic collision detection in highway driving - **Xinwei Wang**, Zirui Li, Javier Alonso-Mora and Meng Wang **TU Delft** TU Dresden
10:30 – 10:55	A roundD-like roundabout scencario in CARLA simulator - **Ali Nadar**, Mathis Lafon and Jérome Härri **Commnunications systems EURECOM**	Hierachical speed harmonization control for mixed traffic - Kinda Chakas, Lina Kattan and **Seiran Heshami** **University of Calgary**	Local traffic safety analyzer (LTSA) – Improved road safety and optimized signal control for future urban intersections - **Kim Jannik Eggers**, Robert Oertel and Martin Hesse **DLR – German Aerospace Center**
10:55 – 11:20	Implementation of tradable credit scheme in the integrated agent-based urban simulator SimMobility - **Renming Liu**, Ravi Seshadri, Yu Jiang and Carlos Lima Azevedo **TU Denmark**	Multimodal performance evaluation of urban traffic control: A microscopic simulation study - **Natalie Sautter**, Lisa Kessler, Danil Belokhov and Klaus Bogenberger **TU Munich**	Towards efficient incident detection in real-time management - Ferran Torrent-Fontbona, **Monica Dominguez**, **Javier Fernandez Frade** and Jordi Casas **Aimsun SLU**
11:20 – 11:45	A MILP framework to solve the sustainable system optimum with link MFD functions - **Niloofar Shakoori**, Giovanni De Nunzio and Ludovic Leclercq **IFP Energies nouvelles, Université Gustave Eiffel**	Exploiting deep learning and traffic models for freeway traffic estimation - Alexander Genser, **Michail A. Makridis** and Anastasios Kouvelas **ETH**	DAVE – Data collection and algorithm development for traffic conditions determination based on cooperative vehicle messages (C2X) - **Matthias Körner**, Sebastian Pape, Django Adam and Maximilian von Münchow **TU Dresden**
11:45 – 12:00	**BREAK with Snack**		
12:00 – 12:20	**Sponsorship Session (Yunex GmbH & SAENA GmbH)**		
12:20 – 12:40	**CLOSING Ceremony**		