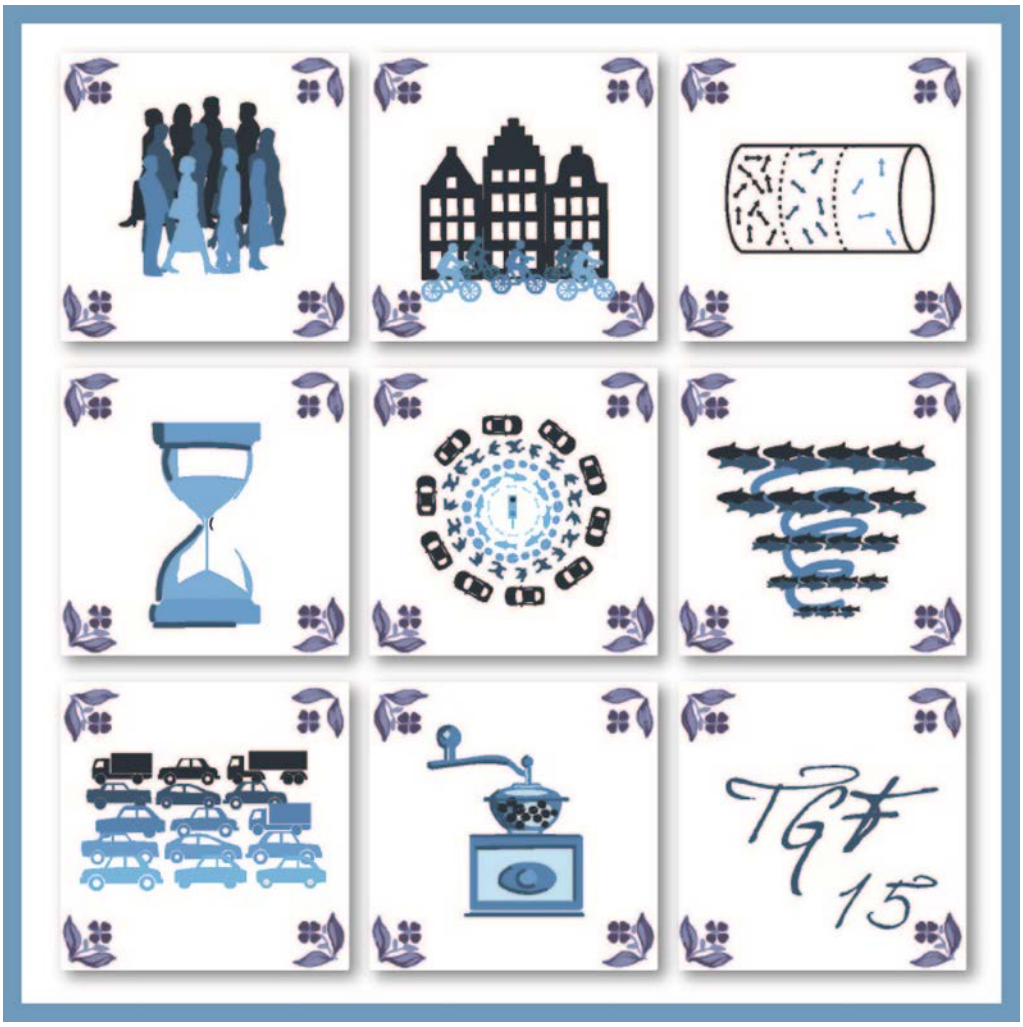
Programme of Conference on Traffic and Granular Flow '15



Version: 26 October 2015

	Tuesday October 27	
17.00	Welcome drinks at Van der Valk hotel in Nootdorp	
19.00	End	
	Wednesday October 28	
08.30	Coffee	
09.00	Opening by Rector Magnificus Delft University of Technology Prof. Karel Luyben	
09.10	From microscopic to macroscopic traffic patterns: different applications of the variational theory Keynote talk Prof. Ludovic Leclercq	
10.00	Session 1A Armin Seyfried	Session 1B Andreas Schadschneider
	A unified pedestrian routing model combining multiple graph based navigation methods Peter Kielar, Daniel Biedermann and André Borrman	How to get a model in pedestrian dynamics to produce stop and go waves Felix Dietrich, Stefan Disselnkötter and Gerta Köster
	Wayfinding and cognitive maps for pedestrian models Erik Andresen, David Haensel, Mohcine Chraibi and Armin Seyfried	A force-based model to reproduce stop-and-go waves in pedestrian dynamics Mohcine Chraibi, Antoine Tordeux and Andreas Schadschneider
	Adaptive tactical decisions in pedestrian simulation: a hybrid agents approach Stefania Bandini, Luca Crociani and Giuseppe Vizzari	Impact of impulse stops on pedestrian flow Jaeyoung Kwak, Hang-Hyun Jo, Tapio Luttinen and Iisakki Kosonen
11.00	Coffee break	
11.20	Session 2A Pavel Hrabák	Session 2B Martin Treiber
	Is slowing down enough to model movement on stairs? Gerta Köster, Daniel Lehmberg and Felix Dietrich	A multi-class vehicular flow model for aggressive drivers Wilson Marques Jr, Rosa Maria Velasco Belmont and Alma Rosa Mendez Rodriguez
	Data-driven characterization of multidirectional pedestrian traffic Marija Nikolić and Michel Bierlaire	Microscopic simulations of oversaturated city traffic: features of synchronised flow patterns Gerhard Hermanns, Peter Hemmerle, Hubert Rehborn, Boris Kerner and Michael Schreckenberg
	Statistical structures of low density pedestrian dynamics Alessandro Corbetta, Chung-min Lee, Roberto Benzi, Adrian Muntean and Federico Toschi	Traffic simulations with empirical data – How to replace missing traffic flows? Lars Habel*, Fabian Hadiji, Thomas Zaksek, Alejandro Molina, Kristian Kersting, and Michael Schreckenberg
	On collective movement characteristics of four-directional intersecting flows Liping Lian, Weiguo Song, Richard Yuen and Chunlin Wu	Dynamic model for assignment in 'sky-car' transit system – spatial intersections with other common transport modes Kwami Sossoe and Jean-Patrick Lebacque
12.40	Lunch	
13.40	Session 3A Tobias Kretz	Session 3B Jean-Patrick Lebacque
	A queueing model based on individual social attitudes Gerta Köster and Benedikt Zönnchen	Impact of synchronized flow in oversaturated city traffic on energy efficiency of conventional and electrical vehicles Peter Hemmerle, Micha Koller, Gerhard Hermanns, Michael Schreckenberg, Hubert Rehborn and Boris Kerner
	How do people queue – a study of different queuing models Angelika Kneidl	Evaluation of transportation network resilience using adaptive capacity Suhyung Yoo and Hwasoo Yeo
	The relationship between a waiting crowd and the average service time Oliver Handel and André Borrmann	Network-wide mesoscopic traffic state estimation based on a variational formulation of the LWR model Yufei Yuan, Aurélien Duret and Hans van Lint
	'How do we wait?' – Fundamentals, characteristics, and modelling implications Michael Seitz, Stefan Seer, Silvia Klettner, Oliver Handel and Gerta Köster	Route choice behaviour in a three roads scenario Dominik Wegerle and Michael Schreckenberg
15.00	Coffee break	
15.20	Poster Session	
16.10	Session 4A Jeroen van den Heuvel	Session 4B Yuki Sugiyama
	Steady state of pedestrian flow in bottleneck Weichen Liao, Antoine Tordeux, Mohcine Chraibi, Armin Seyfried, Xiaoping Zheng and Ying Zhao	Calibrating the local and platoon dynamics of car-following models on the reconstructed NGSIM data Valentina Kurtc and Martin Treiber
	Statistical models for pedestrian behaviour in front of bottlenecks Nikolai Bode and Edward Codling	Scaling from circuit experiment to real traffic based on optimal velocity model Akihiro Nakayama, Macoto Kikuchi, Akihiro Shibata, Yuki Sugiyama, Shin-ichi Tadaki and Satoshi Yukawa
	Dynamic of congestion in pedestrian traffic Verena Ziemer and Armin Seyfried	Traffic flow optimization at sags by controlling the acceleration of some vehicles Bernat Goñi Ros, Victor Knoop, Kenichi Kitahama, Bart van Arem and Serge Hoogendoorn
	Determining the density experienced by pedestrians in unstable flow situations Dorine Duives, Winnie Daamen and Serge Hoogendoorn	Multimodal traffic on networks with information Megan Khoshyaran and Jean-Patrick Lebacque
17.30	Make group picture	
17.45	End	
18.30	Dinner at Conference Hotel	
21.00	End	

	Thursday October 29	
08.30	Coffee	
09.00	Distributed information systems to assist pedestrians, traffic and logistics keynote talk by Prof. Dirk Helbing	
09.50	Session 5A Weiguo Song	Session 5B Nikolai Bode
	Modeling stride length and stepping frequency Isabella Von Sivers, Gerta Köster and Benedikt Kleinmeier	On the use of sheep to model of pedestrian evacuation through narrow doors Iker Zuriguel, Martín Pastor, César Martín-Gómez, Luis Ferrer, Juan Ramos, Daniel Parisi and Ángel Garcimartín
	Experimental study on the influence of step phase in pedestrian movement Chi Liu, Weiguo Song and Siuming Lo	Boarding of finite-size passengers to an airplane Jevgenijs Kaupužs, Reinhard Mahnke and Hans Weber
	The influence of Moore and von-Neumann neighbourhood on the dynamics of pedestrian movements Christian Rogsch	Granularity of pre-movement time distribution in crowd evacuation simulations Jakub Porzycki, Robert Lubaś and Jarosaw Was
10.50	Coffeebreak	
11.10	Session 6A Mohcine Chraibi	Session 6B Sylvain Lassarre
	Methodology for generating individualized trajectories from experiments Wolfgang Mehner, Maik Boltes and Armin Seyfried	When is a bottleneck a bottleneck? Johannes Schmidt, Vladislav and Andreas Schadschneider
	Advances in measuring pedestrians at Dutch train stations using bluetooth, wifi and infrared technology Jeroen van den Heuvel, Danique Ton and Kim Hermansen	Jam avoidance with autonomous systems Antoine Tordeux and Sylvain Lassarre
	Avoiding walls – what distance do pedestrian keep from walls and other obstacles? Ernst Bosina, Mark Meeder, Beda Buechel and Ulrich Weidmann	Modelling of backward travelling holes in mixed traffic conditions Amit Agarwal, Gregor Lämmel and Kai Nagel
	Measuring and modelling crowd flows – fusing stationary and tracking data Martin Treiber	Analysis in Kantorovich geometric space for quasi-stable patterns in 2D-OV model Ryosuke Ishiwata and Yuki Sugiyama
12.30	Lunch	
13.30	Session 7A Stefan Seer	Session 7B Gerta Köster
	Empirical study of the influence of social groups in evacuation scenarios Cornelia von Krüchten, Frank Müller, Anton Svachiy, Oliver Wohak and Andreas Schadschneider	The inflection point of the speed density relation and the Social Force model Tobias Kretz, Jochen Lohmiller, and Johannes Schlaich
	Models and analysis Of evacuation dynamics Of asymmetrically coupled pedestrian pairs Frank Müller and Andreas Schadschneider	Investigation on cooperative avoiding behaviour in bidirectional flow Daichi Yanagisawa
	Granulometric distribution and crowds of groups: focusing on dyads Andrea Gorrini, Giuseppe Vizzari and Stefania Bandini	Pedestrian dynamics at transit stations: a hybrid pedestrian flow modeling approach Samer Hamdar and Emily Porter
14.50	Coffeebreak	
15.10	Poster Session	
16.10	End	
16.15	Departure for Social Event	
17.00	Social Event	
19.00	Conference Dinner at Madurodam	
22.30	Back in hotel	

	Friday October 30	
08.30	Coffee	
09.00	The self-organised dynamics of shape and internal structure of flocks of starlings Keynote talk by Prof. Charlotte Hemelrijk	
09.50	Session 8A Jian Ma	Session 8B Reinhard Mahnke
	A macroscopic loading model for dynamic, multi-directional and congested pedestrian flows Flurin Hänseler, William Lam, Michel Bierlaire, Riccardo Scarinci and Gael Lederrey	Two-channel partially coupled exclusion process with mutually interactive langmuir kinetics Arvind Kumar Gupta
	Collision-free first order model for pedestrian dynamics Antoine Tordeux, Mohchine Chraibi and Armin Seyfried	Transcription on crowded DNA Aafke van den Berg and Martin Depken
	A finite element simulation of high density pedestrian flow Rebekka Axthelm	Moving without a leader – the benefits of swarming Ruben van Drongelen and Timon Idema
10.50	Coffeebreak	
11.10	Session 9A Christian Rogsch	Session 9B Peter Hemmerle
	Oppilatio – The forecast of crowd congestions on street networks during public events Daniel Biedermann, Peter Kielar and André Borrmann	Fractal analysis of empirical and simulated traffic time series Thomas Zaksek and Michael Schreckenberg
	Simulations-based forecasts of crowd flows at major events using real-time measurements Thomas Matyus, Stefan Seer and Helmut Schromfeiertag	Physical mechanism for the occurrence of wide-scattering in Traffic Cellular Automata (TCA) Models Wei Luang Quek and Lock Yue Chew
	Level of safety concept for major events Stefan Holl, Maik Boltes and Armin Seyfried	Effective Modelling of traffic dynamics: classification and unification Bo Yang and Christopher Monterola
	Brazilian legislation and the Boate Kiss tragedy – computational modelling of evacuation Henrique Braga, Gray Moita and Paulo Almeida	Empirical verification of microscopic traffic models from the detailed acceleration patterns Bo Yang, Jiwei Yoon and Christopher Monterola
12.30	Closing	
12.45	Farewell lunch	
13.45	End	

Posters	
Computing and visualization of pedestrians	
PedVis – Pedestrian flow visualizations	Arne Scheuermann, Jimmy Schmid, Nicolo Bernasconi, Judith Buehling and Michael Flueckiger
Distributed computing in crowd dynamics simulation systems	Robert Lubas, Jakub Porzycki and Jarosław Waş
Facing needs and requirements of crowd modelling: towards a dedicated computer vision tooltest	Sultan Khan, Giuseppe Vizzari and Stefania Bandini
Modelling pedestrians	
Simulation of crowd in the corridor of Ziara in Masjid-e-Nabwi, Madinah	Abdullah Alshehri, Muhammad Arif and Emad Felemban
Simulation of people flow by a fuzzy discrete automate model and an ergonomic approach	Henrique C. Braga, Gray F. Moita and Paulo E.M. Almeida
The inflection point of the speed-density relation and the social force model	Tobias Kretz, Jochen Lohmiller and Johannes Schlaich
Sensitivity of the continuum model regarding pedestrian movement phenomena	Dorine C. Duives, Winnie Daamen and Serge Hoogendoorn
Evacuation behaviour	
Method for simulating the evacuation behaviours of people in dynamically changing situations	Toshinori Niwa, Rintaro Isono and Tomoichi Takahashi
Efficacy of evacuation time estimation framework for total pedestrian evacuation derived from agent based model on queuing network and volunteered geographic information for UK cities	Bharat Kunwar, Filippo Simini and Anders Johansson
Modelling pedestrian evacuation movement in a swaying ship	Juan Chan, Jian Ma and Lo Siuming
Empirical pedestrian data and measurements	
Estimation of density levels in the holy mosque from a network of cameras	Yasir S. Ali, Basim Zafar and Mohammed Simsim
Method for measuring pedestrian density with low computational costs and high resolution	Maria Davidich
Individual microscopic results of bottleneck experiments	Marek Bukáček, Pavel Hrabák and Milan Krbálek
Understanding the pedestrian group behaviour in normal conditions	Lakshmi Devi Vanumu, Kalaga Ramachandra Rao and Geetam Tiwari
Traffic control	
Traffic phase dependent fuel consumption	Micha Koller, Peter Hemmerle, Hubert Rehborn, Boris Kerner and Stefan Kaufmann
Examining perimeter gating of urban traffic networks with locally adaptive traffic signals	Vikash Gayah, Xueyu Gao, Mehdi Keyvan Ekbatani and Victor Knoop
A comparison of tram priority at signalized intersections in Melbourne	Lele Zhang, Timothy M. Garoni and Somayeh Shiri
Macroscopic modelling of heterogeneous traffic flow using area occupancy	Hari Krishna Gaddam and Kalaga Ramachandra Rao
Empirical data for vehicular traffic	
Bifurcation analysis of experimentally accessible car-following model	Akiyasu Tomoeda, Tomoyuki Miyaji and Kota Ikeda
Lane changing and speed interaction on freeways: an analytical microscopic study	Mehdi Keyvan-Ekbatani, Vincent Grebert, Winnie Daamen and Victor L. Knoop
Discrete simulation and capacity	
Estimation of discretized motion of pedestrians by the decision-making model	Pavel Hrabák and Ondřej Ticháček
Discrete phenomena-based multi-scale traffic flow modelling	Mahtab Joueiai, Hans van Lint and Serge Hoogendoorn
Traffic capacity estimation method of a waterway intersection	Xavier Bellsolà Olba, Winnie Daamen, Tiedo Vellinga and Serge P. Hoogendoorn
Granular flow to a blast iron ore furnace – influence of the particle size distribution on segregation of the mixture	Dingena Schott, Carmen Molhoek, Wouter Vreeburg and Gabriel Lodewijks