

PERSONAL INFORMATION

Sven Maerivoet



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 www.tmleuven.be

Sex Male | Date of birth 11/04/1976 | Nationality Belgian

POSITION

Sven Maerivoet holds a PhD degree in traffic engineering. Within TML he is a member of the Data Enrichment Group. His expertise mainly lies in transportation planning models, traffic flow theory, giving courses and lectures, numerical and statistical analysis of various big data, travel time loss functions, multi-agent systems, sustainability effects in cities, external costs of road congestion, the related parking problems and innovative technological solutions, intelligent transportation systems (ITS), road user charging, autonomous vehicles, Open Data, Mobility-as-a-Service, and Smart Cities. He is also an active member of several working groups in the ITS Belgium organisation, former member of the advisory council of the Flemish Institute for Mobility (VIM), expert evaluator for the European Commission, and regular reviewer for various scientific journals en conferences.

WORK EXPERIENCE

2018

Expert evaluator Horizon 2020 proposals

European Commission / Research Executive Agency

- Work programme 2018-2020 (Smart, green, and integrated transport)

2006 – present

Senior researcher / consultant / data scientist

Transport & Mobility Leuven

- Road traffic flow modelling
- Numerical data analyses and machine learning techniques
- Time series modelling
- Software development
- Transport planning
- Intelligent transportation systems
- Open data
- Autonomous vehicles

2001 - 2006

Research assistant

KU Leuven

Department of Electrical Engineering ESAT-SCD (SISTA)

Kasteelpark Arenberg 10

3001 Leuven

Belgium

- Doctoral researcher

1998 – 2001

IT Management and Support, Software Developer

University of Antwerp (UA) / Library Campus Middelheim

Middelheim/Groenenborger

Groenenborgerlaan 171 / 2020 Antwerp

Campus Drie Eiken

Universiteitsplein 1 / 2610 Antwerp (Wilrijk)

Belgium

- First-line help
- Network management and server deployment

- Java prototype development for the "Open Virtuele Meubel Markt" (OVMM)

EDUCATION AND TRAINING

September 2001 – June 2006

PhD in engineering

KU Leuven
 Grote Markt 13
 3000 Leuven
 Belgium

- Traffic flow theory and mathematical modelling of traffic on motorways
- Exploratory data analysis, time series analysis, and travel time estimation
- Integrated dynamic traffic assignment

September 1996 – June 2001

Master of Computer Science

Universtaire Instelling Antwerpen (UIA)
 Prinsstraat 13
 2000 Antwerpen
 Belgium

PERSONAL SKILLS

Mother tongue

Dutch

Other languages

English
 French
 Greek (Modern Greek)

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C2	C2	C2	C2	C2
C1	C1	B1	B1	B2
A1	A2	A1	A1	A1

Common European Framework of Reference for Languages:

A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user

Communication skills

- Working in teams/groups, as well as independent; good communicative skills
- Giving dynamically inspiring lectures (multiple silver medals) and creatively writing accessible texts
- Giving interviews to the press (written, spoken, live)
- Moderating sessions, presentations, and debates
- Good and memorable public speaker (dynamic presentations, Lightning Talks, ...)
- Well developed natural feeling for language
- Core competences: cooperating, inspiring, taking responsibility, meeting
- Additional competences: gathering information, use creativity, pedagogical insight, handling consequently, developing vision, and critical view

Organisational / managerial skills

- Always ready to assist others; eager to listen and learn from others
- Coordination and administration of people, projects, and budgets (10+ companies, 20+ people, 2 mio euro)
- Development of strategic (company) goals
- Solving problems through abstraction and insight
- Fluidly developing social contacts and interactions with others
- Flexible deployment (incl. technical support)

Digital competence

Programming languages / traffic modelling:

- Visual BASIC (VBA and VB.NET), Assembler (Intel, SRC), (Turbo) Pascal, Delphi, C, C++, C#, Oberon, Modula-2, Fortran, Java, J#, .NET, (My)SQL, (X)HTML, XML, CSS(2), JSP, DHTML, UML, JavaScript, Java Servlets, PHP, Python, UNIX/Linux scripting, Android, Processing, Mathematica, MATLAB, Octave, GNUPlot, R, SPlus, GIS environments (ArcGIS, QGIS), ray tracing, OmniTRANS, Paramics, VISSIM, SUMO, CUDA, OpenGL, OpenCL, Machine Learning, Kaggle

Software development:

- Microsoft Visual Studio .NET, Eclipse, NetBeans, Maven, Subversion, Git, Mantis, Mylyn
- Microsoft Office / LaTeX / CorelDRAW / XFig / Dia / PageMaker / Open-, Star- & LibreOffice: Excellently skilled

Operating systems:

- MS-DOS, FreeDOS, Windows 95/98/NT/2000/XP/Vista/7/8/10, Native Oberon, UNIX, Linux, experience with complex boot loaders, network management under Linux and Windows 95/98/NT/2000/XP/Vista/7/8/10

Software developed:

- **Partition Picker:** a hard disk low-level partition and sector editor (Pascal)
- **Mitrasim 2000:** a complete microscopic road traffic simulator (Java)
- **SvenGL Ray Tracing:** an OpenGL-based ray tracer (C++)
- **SM TCA+:** microscopic traffic simulators based on cellular automata (Java)
- **SMTTools:** a template framework for quick GUI-based application development (Java)
- **Maerivoet.org:** a template framework for website development (PHP)
- **FLEXSYS Intersection Converter:** automatic conversion of a road network (Java)
- **Validation of Traffic Detector Measurements & Clusteranalysis:** framework for testing and clusteranalysis (MATLAB)
- **Analysis of Loop Detectors:** framework for extraction and processing of traffic measurements stemming from loop detectors on motorways (MATLAB)
- **User Performance Analyser:** analysis software for evaluating smart mobility changes in user behaviour due to road user charging (Java)
- **VIM Project evaluation tool:** tool for the evaluation of VIM projects based on vehicle loss hours in light of strategic goals (Excel)
- **Fraxion:** multi-threaded tool for the calculation of Mandelbrot, Julia, Newton/Raphson, and Markus/Lyapunov fractals in the complex plane (Java)
- **SeeYa:** multidimensional cellular automata (Java)
- **Arduino C++/Processing / Raspberry Pi:** various sketches
- **Extra courses:** networking, GIS, communication, advanced Excel, creative writing (also taught), writing business English, mediatraining, MBTI, stress management, ...

Other competences

- 2013-2017: Working groups +16 and Volunteer policies KSJ-KSA-VKSJ Nationaal
- 2011-2017: President Steering Committee Communication KSJ-KSA-VKSJ Nationaal
- 2001-2013: Editor Leader Magazine KSJ-KSA-VKSJ Nationaal
- 1998: Mentor UIA (Praesidium WINAK, University of Antwerp)
- 1992-2012: KSA Vlaamse Kerels Zwindrecht (11 years active leader 9-12, 12-14, 14-16, 16+; 14 years management; 5 years cook)
- Maker (micro-electronics, do-it-yourself, woodcrafting)
- DJ

Driving licence

- B

ADDITIONAL INFORMATION

Publications

PhD dissertation:

- Maerivoet Sven, **Modelling Traffic on Motorways: State-of-the-Art, Numerical Data Analysis, and Integrated Dynamic Traffic Assignment**, Department Electrical Engineering ESAT-SCD (SISTA), Faculty of Engineering, KU Leuven, June 2006

Master's thesis:

- Maerivoet Sven, **The use of microscopic traffic simulation in a study on the congestion problems on the Antwerp Ring road**, Department of Mathematics and Computer Science, Faculty of Exact Sciences, Universitaire Instelling Antwerpen, June 2001

Publications in journals (h-index 9, 15 citations/publications, 42 citations/year, Erdős nr. 4):

- Maerivoet Sven, **Waar Werken Informatici?**, Universiteit Antwerpen, pages 20-21, 2018
- Akkermans L., Carlier K., Maerivoet S., **A Study on Co-modality and Eco-driving Mobility**, in Science, Society and New Technologies Series, Research for Innovative Transports Set, Volume 1, Energy and Environment, ISTE & Wiley, eds. Michel André and Zissis Samaras, chapter 19, pages 20-22, June 2016
- Maerivoet Sven, **De (r)evolutie van de routeplanner**, NM Magazine, nr. 2, pages 20-22, 19 may 2016
- Maerivoet Sven, Column: **Interessante tijden!**, in NM Magazine, nr. 3, page 31, 27 July 2015
- Van Moerkerke Bart and Maerivoet Sven, **Een modal shift vraagt eerst een mental shift**, in Verkeersspecialist, nr. 216, pages 10-13, May 2015
- Maerivoet Sven, **Trajectcontrole E40 Brussel-Gent verbetert verkeersveiligheid**, in NM Magazine, nr. 2, page 7, April 2015
- Depla Tom and Maerivoet Sven, **Trajectcontrole zorgt voor stabielere verkeersstroom**, in Verkeersspecialist, nr. 214, page 3, March 2015
- Maerivoet Sven, **MODUM: Proefproject dynamische en groene routeplanning**, NM Magazine, nr. 1, pages 28-29, January 2015
- Maerivoet Sven, **Slimme mobiliteit in de Proeftuin Leuven**, NM Magazine, vol. 8, nr. 3, pages 30-33, September 2013
- Maerivoet Sven, **Wiskundige modellen in het verkeer**, Karakter (Tijdschrift van Wetenschap), nr. 43, pages 22-24, September 2013
- Maerivoet Sven et al., **A Field Trial on Smart Mobility**, in Procedia Social and Behavioral Sciences (15th Meeting of the EURO Working Group on Transportation), nr. 54, pages 926—935, 2012
- Steenberghen Thérèse, Dieussaert Karel, Maerivoet Sven, and Spitaels Karel, **SUSTAPARK: An agent-based model for simulating parking search**, in Spatial Issue of URISA Journal Urban and Regional Modeling versus Planning Practice: Bridging the Gap, vol. 24, nr. 1, pages 63—76, 2012
- Maerivoet Sven, **Hulp bij uitstippelen duurzaam parkeerbeleid**, in Verkeersspecialist, nr. 143, pages 11—13, December 2007
- Maerivoet Sven and De Moor Bart, **Cellular Automata Models of Road Traffic**, in Physics Reports (impact factor 23), vol. 419, nr. 1, pages 1—64, November 2005
- Maerivoet Sven and De Moor Bart, **Non-concave fundamental diagrams and phase transitions in a stochastic traffic cellular automaton**, in The European Physical Journal B – Condensed Matter Physics (impact factor 1.7), vol. 42, nr. 1, pages 131—140, November 2004

Publications in conference proceedings:

- Maerivoet S., **Trip and tourist tour planning with integrated fare and ticketing management**, 25th ITS World Congress, Copenhagen, Denmark, September 2018
- Wijbenga A., Vreeswijk J., Schindler J., Mintsis E., Rondinone M., Sepulcre Ribes M., Maerivoet S., **Assessment of automated driving to design infrastructure-assisted driving at transition areas**, 25th ITS World Congress, Copenhagen, Denmark, September 2018
- Lu M., Blokpoel R., Schindler J., Maerivoet S., Mintsis E., **ICT Infrastructure for Cooperative, Connected and Automated Transport in Transition Areas**, Transportation Research Arena (TRA2018), Paris, France, April 2018
- Maerivoet S. and Akkermans L., **Operational Safety for Autonomous Vehicles**, 12th ITS European Congress, Strasbourg, France, June 2017
- Delhay E., De Ceuster G., Vanhove F., and Maerivoet S., **Internalisation of External Costs of Transport in Flanders**, Proceedings of the BIVIC-GIBET Transport Research Days 2017: Towards an Autonomous and Interconnected Transport Future, Eds. Mario Cools and Sabine Limbourg, Pages 224-239, Liège, Belgium, 18-19 May 2017
- Maerivoet S., **(R)evolutions in route planners**, 11th ITS European Congress, Glasgow, Scotland,

May 2016

- Maerivoet Sven, Akkermans Lars, Carlier Kristof, and Desaegher Muriel, **A study on co-modality and eco-driving mobility**, Transport Research Arena (TRA2014), Paris, France, April 2014
- Maerivoet Sven, Delhaye Eef, and Maertens Friedl, **A behavioural experiment on intelligent road user charging**, Transport Research Arena (TRA2014), Paris, France, April 2014
- Maerivoet Sven, **Models for optimising dynamic urban mobility (MODUM)**, Transport Research Arena (TRA2014), Paris, France, April 2014
- Maerivoet Sven et al., **A Field Trial on Smart Mobility**, 19th ITS World Congress, Vienna, Austria, October 2012
- Maerivoet Sven, Breemersch Tim, and Van Damme Olivier, **A study into the economic, environmental and traffic impacts of a Sunday driving ban for HGVs in the Walloon Region**, Vervoerslogistieke Werkdagen, Antwerp, Belgium, December 2011
- Akkermans Lars, De Ceuster Griet, and Maerivoet Sven, **Impact EU ITS directive: Sanity check on investments in the ITS sector**, 11th ITS Congress, ITS Belgium, October 2011
- Delhaye Eef, Maerivoet Sven, and De Ceuster Griet, **Internalisation of external costs of transport in Flanders**, BIVC/GIBET Transport Research Day, May 2011
- Van Damme Olivier, Akkermans Lars, Breemersch Tim, and Maerivoet Sven, **A study into the economic, environmental and traffic impacts of a Sunday driving ban for HGVs in the Walloon Region**, BIVC/GIBET Transport Research Day, May 2011
- Maerivoet Sven, **Een kerel met een verkwikkend charisma**, in “Met TNO naar een Robuust Wegennetwerk: Afscheid van Ben Immers”, Delft, The Netherlands, October 2009
- Spitaels Karel and Maerivoet Sven, **SUSTAPARK: Duurzaam Parkeerbeleid**, in Proceedings of the XXIth Belgian Road Congress, Ghent, September 2009
- Dieussaert Karel, Aerts Koen, Steenberghen Thérèse, Maerivoet Sven, and Spitaels Karel, **SUSTAPARK: An Agent-based Model for Simulating Parking Search**, in Proceedings of the 12th AGILE International Conference on Geographic Information Science, Leibnitz Universität, Hannover, Germany, June 2009
- Spitaels Karel and Maerivoet Sven, **An Empirical Agent-based Model of Parking Behaviour**, in Proceedings of the Kumho-Nectar Conference, Tinbergen Institute, Amsterdam, The Netherlands, June 2008
- Maerivoet Sven and Logghe Steven, **Validation of Travel Times based on Cellular Floating Vehicle Data**, in Proceedings of the 6th European Congress and Exhibition on Intelligent Transport Systems and Services, Aalborg, Denmark, June 2007
- Maerivoet Sven, **Evalueren aan de hand van papers**, Duo/Icto Zomerklassen, KU Leuven, Belgium, September 2004
- Maerivoet Sven, **Sustainability Effects of Traffic Management Systems**, The Transport Science and Technology Conference (TransTec), Athens, Greece, September 2004
- Maerivoet Sven and De Moor Bart, **Development of an improved traffic cellular automaton model for traffic flows on a highway road network**, in Proceedings of the 10th World Congress and Exhibition of Intelligent Transport Systems and Services (ITSS03), Madrid, Spain, November 2003
- Maerivoet Sven, Logghe Steven, Immers Ben, and De Moor Bart, **A comparison of a cellular automaton and a macroscopic model**, in Proceedings of the Workshop on Traffic and Granular Flow '03, Technische Universiteit Delft, The Netherlands, October 2003
- Maerivoet Sven, **Development of a Traffic Cellular Automaton Model for Highway Traffic**, 22nd Benelux Meeting on Systems and Control, Louvain-la-Neuve, Belgium, March 2003
- Maerivoet Sven, **Modeling, Simulation and Control of Traffic Flows on a Highway Network**, Faculty of Engineering PhD Symposium, KU Leuven, Leuven, Belgium, Winner of the “Best Poster Award”, December 2002
- Maerivoet Sven and Bellemans Tom, **A Case Study on Traffic Flow Modelling, Simulation and Control**, Interuniversity Attraction Poles (IAP) Study Day, Louvain-la-Neuve, Belgium, November 2002

Book contributions:

- Hill Francis S. and Kelley Stephen M., **Computer Graphics using OpenGL**, 3rd edition, Pearson Prentice Hall, ISBN 0-13-149670-0, 2007 (cover art, inside illustrations, support, and suggestions)
- Akkermans L., Carlier K., Maerivoet S., **A Study on Co-modality and Eco-driving Mobility**, in Science, Society and New Technologies Series, Research for Innovative Transports Set, Volume 1, Energy and Environment, ISTE & Wiley, eds. Michel André and Zissis Samaras, chapter 19, pages 20-22, June 2016

Projects

- **ConACon**: Context-Aware Control (2018-2020)
- **Leuven VGS**: Supporting the deployment of a traffic management system in Leuven
- **Telraam**: Affordable, intricate traffic counts with Raspberry Pi (2018-2019)
- **Garage Swap**: Sustainable sharing and concentrating through deviation of the parking norm (2017-

2019)

- **TransAID**: Autonomous vehicles and transition areas for infrastructure-assisted driving (2017-2020)
- **INTUIT**: Interactive Toolset for Understanding Trade-offs in ATM Performance (2016-2018)
- Developing a bus and coach mobility vision (2016-2017)
- Sustainable transport infrastructure charging (2016-2017)
- Shifting from Labour Taxation to Road Pricing (2016-2017)
- Update transport costs ISVAG (2016)
- Internalisation of External Costs of Transport in Flanders (2016)
- Support provincial traffic models (2015-2017)
- **ShopMob data analyses**: Analysing data sets within the framework of the project "ShopMob: mobility and 'rush hour avoidance' while shopping" (2015-2016)
- **Train Scheduling: The Game**: Optimization of train scheduling in a pc simulation game environment (2015-2016)
- **EMDAS**: Environmental Modelling for automated Driving and Active Safety (2015-2016)
- Understanding the second hand car market in the EU (2015)
- ITSB VIS Support (2015)
- SCBA Trajectory speed control (2014)
- Concept Grant Hendrik Heymansquare Sint-Niklaas (2014-2015)
- Support creation ITS-actionplan for Flanders (2014)
- Parking Study City of Antwerp (2013)
- **Holistic Personal Public Eco-Mobility (HoPE)**: Smart ticketing and smart trip planning (2013-2017)
- **Advisory VIM**: evaluation project concepts (2013-2014)
- **Training Vlaamse Stichting Verkeerskunde**: Mobility academy parking policy (2013-2016)
- **Parking study Grote Markt Blankenberge**: Parking balance and parking duration study for a new public parking infrastructure (2013)
- Supporting the Development of the White Book on Spatial Planning Policy in Flanders: TML supports the Flemish government on the topics related to mobility (2013)
- **ITSB Impact Assessment**: overview of the state-of-the-art and analysis of the existing literature (limited impact assessment) (2012)
- **Parking study for the City of Antwerp**: Revision of the current parking policy plan (2013-2014)
- **Affordable and profitable taxis in BRC**: Research on the currently applicable tariff structure in BMC (2012)
- **Olympus**: Electric vehicles sharing services based on a B2B service platform (2012-2015)
- **Competition recreational cluster Moerelei**: Drafting a vision on the future of the recreational cluster 'Moerelei' in Wilrijk (2012)
- **MODUM**: Models for Optimising Dynamic Urban Mobility (2011-2014)
- **Mobility and accessibility study parking Carrefour Herstal**: Study about the traffic circulation around the parking site of Carrefour in Herstal (2011-2012)
- **A study on co-modality and eco driving mobility**: Data enrichment applied to detailed mobility data (2011)
- **Impact EU ITS directive**: Sanity check on investments in the ITS sector (2011).
- **OPTIMISM**: Optimising Passenger Transport Information to Materialise Insights for Sustainable Mobility (2011-2013)
- **ECOSTAND**: Support for a Joint Task Force of Europe, Japan and USA on setting a common research agenda for assessing impact of ITS on energy efficiency (2010-2013)
- **Supporting smarter mobility**: A technological and innovative solution for road charging, eCall, and other services (2009-2012)
- **Overview ITS market Belgium 2010**: Opportunities and obstacles for Dutch companies (2011)
- **The future of ISVAG**: Consideration of future scenarios for the waste incineration plant ISVAG (2009-2010)
- **Effects of a driving restriction for heavy goods vehicles on Sunday in the Walloon region**: Study of the economic, environmental and traffic effects in the Walloon region of a driving restriction for heavy goods on Sunday (2010)
- **iPark4U**: Demonstration project for in-car parking navigation (2009-2010)
- **MIRA external costs**: Internalisation of external costs in Flanders (2010)
- **Estimation of used parking spaces in Leuven**: Statistical analysis of payment transactions (2009-2010)
- **Estimation of travel time losses on trajectories**: How much congestion is a commuter encountering? (2010)
- **Evacuation of disabled persons**: Development of a model for the evaluation of the accessibility, fire safety and evacuation of disabled persons in the hotel and catering industry (2007-2009)

- **Expert system for traffic data:** Quality control and reconstruction of traffic data for traffic indicators (2007-2009)
- **SUSTAPARK:** Optimising price and location of parking in cities under a sustainability constraint (2007-2009)
- **Traffic circulation parking Carrefour in Korbeek-Lo:** Study about the traffic circulation on and around the parking site (2009)
- **Analysis of traffic congestion in Belgium:** Evolution of traffic congestion in light of the growth in traffic demand and possible control measures (2008)
- **FLEXSYS:** Flexible traffic management system (2006-2008)
- **Traffic indices:** Traffic statistics for the Belgian motorway network (2001-2008)
- **NDP Oslo:** Network Design Problem for Oslo greater area (2006-2007)
- **CFVD:** Validation of travel times based on Cellular Floating Vehicle Data (2006)
- Sustainability effects of traffic management systems (2001-2005)

Scientific reviewer

International journals:

- The European Physical Journal B: Condensed Matter and Complex Systems
- International Journal of Modern Physics C: Computational Physics and Physical Computation
- Journal of Statistical Physics
- Journal of Transportation Engineering (American Society of Civil Engineers)
- Physica A: Statistical Mechanics and its Applications
- Transportation Research Part C: Emerging Technologies
- IEEE Transactions on Vehicular Technology: Special Section on Telematics Advances for Vehicular Communication Networks
- Computer Communications
- Transportation Research Board (TRB)
- Transactions on Intelligent Transportation Systems
- Encyclopedia of Complexity and Systems Science, section Traffic Cellular Automata

International conferences:

- 13th International Conference on Cellular Automata for Research and Industry (ACRI), member of the Programme Committee on Traffic and Cellular Automata, 17-21 September 2018, Como, Italy
- 18th International IEEE Conference on Intelligent Transportation Systems, 15 – 18 September 2015
- 17th International IEEE Conference on Intelligent Transportation Systems, 8 – 11 October 2014, Qingdao, China
- 11th International Conference on Cellular Automata for Research and Industry (ACRI), member of the Programme Committee for "Traffic and Cellular Automata", 22 – 25 September 2014, AGH University of Science and Technology, Krakow, Poland.
- 16th International IEEE Annual Conference on Intelligent Transportation Systems, 6 – 9 October 2013, The Hague, Netherlands
- 10th International Conference on Cellular Automata for Research and Industry (ACRI), member of the Scientific Committee on "Traffic and Cellular Automata", 24 – 27 September 2012, Santorini Island, Greece
- 2nd International Conference on Models and Technologies for ITS, 22 – 24 June 2011, Leuven, Belgium
- 9th International Conference on Cellular Automata for Research and Industry (ACRI), member of Programme Committee on Traffic and Cellular Automata, 21 – 24 September 2010, Ascoli Piceno, Italy
- 13th International IEEE Conference on Intelligent Transportation Systems (ITS), 19 – 22 September 2010, Madeira, Portugal
- 4th International Conference on High Performance Scientific Computing – Modeling, Simulation and Optimization of Complex Processes, 2 – 6 March 2009, Hanoi, Vietnam
- 11th International IEEE Conference on Intelligent Transportation Systems (ITS), 12 – 15 October 2008, Beijing, China
- 2008 IEEE Intelligent Vehicles Symposium, 4 – 6 June 2008, Eindhoven, The Netherlands
- 10th International IEEE Conference on Intelligent Transportation Systems (ITS), 30 September – 3 October 2007, Seattle, Washington, USA

Memberships

- Previously: member of the advisory council of the Flemish Institute for Mobility (VIM)
- 2018 – now: Board of Directors ITS Belgium

Teaching

- 2001 – 2015: guidance and evaluation of various master theses
- 2006 – now: "Traffic Theory: An Interplay of Models, Simulations and Control Actions", Lecture for Case studies Master in Mathematical Engineering, Katholieke Universiteit Leuven

- 2001 – 2006: “Case studies of datamining and industrial process control”, 5th year Civil Engineering, Department of Electrical Engineering, Katholieke Universiteit Leuven
- 2000 – 2001: Teaching practica “Introduction to software engineering”, 1st year Computer Science, Universiteit Antwerpen (RUCA)
- 2000 – 2001: Teaching “Inleidingstraject ICT”, Open Universiteit (adult education)
- 1999 – 2001: Teaching practica “Programming in Oberon”, 1st year Computer Science, Universiteit Antwerpen (RUCA)
- 2001 – now: Various traffic science-related lectures at the KU Leuven

- Lectures**
- 25/10/2018: TransAID: Traffic Management for CAVs at Transition Areas (MAVEN Expert Meeting, Greenwich, United Kingdom)
 - 11/10/2018: Research Agenda for MaaS (workshop organisation at the Belgian ITS Congress, Brussels, Belgium)
 - 11/10/2018: Traffic Information and Management (moderating at the Belgian ITS Congress, Brussels, Belgium)
 - 19/09/2018: TransAID: Transition Areas for Infrastructure-Assisted Driving (European Commission breakout session, 25th ITS World Congress, Copenhagen, Denmark)
 - 18/09/2018: Trip and tourist tour planning with integrated fare and ticketing management (25th ITS World Congress, Copenhagen, Denmark)
 - 19/02/2018: Congestion under Investigation (Case studies: Mathematical Engineering Techniques, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 11/12/2017: Verkeersveiligheid en big data: gedragsverandering en ondersteuning à la carte of table d'hôte? (by L. Akkermans) (Studiedag Verkeersveiligheid: Uitgedaagd door Apps+, Flemish Parliament, Brussels, Belgium)
 - 10/10/2017: Keynote: Road Pricing, Low-Emission Zones, and Traffic Management (Satellic, Brussels, Belgium)
 - 27/09/2017: Artificial Intelligence and Traffic Systems (City Transport & Traffic Innovation (CiTTI) Conference, Amsterdam, The Netherlands)
 - 22/06/2017: Operational Safety for Autonomous Vehicles (12th ITS European Congress, Strasbourg, France)
 - 03/05/2017: Roundtable for motorcycling (impactanalysis) (Febiac + Minister Kris Peeters, Brussels, Belgium)
 - 06/03/2017: Congestion under Investigation (Case studies: Mathematical Engineering Techniques, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 20/02/2017: Impact ITS Maatregelen (Training day "Richting slimme mobiliteit op lokaal niveau", Vlaamse Stichting Verkeerskunde, Leuven, Belgium)
 - 11/02/2017: De fileproblematiek, Regionet Leuven en nieuwe technologieën (Perspectieven voor de mobiliteit in het arrondissement Leuven, Brainstorm-studiedag N-VA arrondissement Leuven rond streekmobiliteit, Leuven, Belgium)
 - 09/06/2016: (R)evolutions in route planners (11th ITS European Congress, Glasgow, Scotland)
 - 24/05/2016: Introducing Transport & Mobility Leuven (Flanders' MAKE Network Pitch Session, 9th Graz Symposium Virtual Vehicle, Graz, Austria)
 - 12/04/2016: Parkeren en ITS/ICT (Training day "Parkeren: Broodnodig?!", Vlaamse Stichting Verkeerskunde, Antwerp, Belgium)
 - 12/04/2016: Maatregelen Parkeerorganisatie (Training day "Parkeren: Broodnodig?!", Vlaamse Stichting Verkeerskunde, Antwerp, Belgium)
 - 03/03/2016: Panel Discussion: Meeting the Needs of Future Congestion Zones (Road User Charging Conference 2015, Brussels, Belgium)
 - 15/02/2016: Congestion under Investigation, recording (MP3 file, 99.66 MiB) (Case studies: Mathematical Engineering Techniques, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 17/12/2015: Data science in traffic analysis, link to the video (Brussels Data Science Meetup, Brussels, Belgium)
 - 11/12/2015: Debate "The future of the selfdriving car" (Festival van de Gelijkheid, Ghent, Belgium)
 - 19/11/2015: Open data as an accelerator and enabler for cities (POLIS Conference, Brussels, Belgium) [photo / photo / photo / photo]
 - 27/10/2015: Transport and Urban Innovation: Developments and Ways Forward (Public Policy Exchange, Smart Cities Symposium, Brussels, Belgium)
 - 01/10/2015: ITS Action Plans (ITS Belgium Conference, Interactive session, ITS Belgium, Brussels, Belgium)
 - 12/09/2015: Towards an objective framework to assess the impact of driverless vehicles (Smart Systems, Bits & Chips, Den Bosch, The Netherlands)
 - 12/09/2015: Verkeer in gevaar (programme, Academische Zitting, Geneeskundige Dagen van Antwerpen, Universiteit Antwerpen, Antwerpen, Belgium)
 - 28/05/2015: Autonomous Vehicles (transcript, Hearing Flemish Parliament, Commission Mobility and Public Works, Brussels, Belgium)
 - 30/03/2015: Verkeersdata en -software in het gemeentelijk mobiliteitsbeleid (Mobiliteitsacademie, Vlaamse Stichting Verkeerskunde, Mechelen, Belgium)
 - 09/03/2015: Congestion under Investigation (Case studies: Mathematical Engineering Techniques, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 03/12/2014: Voorstelling TML aan VTM (VTM, Brussels, Belgium)

- 01/12/2014: Parkeren en ITS/ICT (Training day Parking, Vlaamse Stichting Verkeerskunde, Mechelen, Belgium)
- 27/11/2014: Introducing TML to New Zealand (New Zealand City Council, Leuven, Belgium)
- 17/10/2014: Big Data & Mobility (ITS Belgium Conference, Winner of the Silver Medal for best presentation, ITS Belgium, Brussels, Belgium)
- 17/10/2014: Regional ITS Action Plans: Towards a Flemish ITS Action Plan (ITS Belgium Conference, Interactive session, ITS Belgium, Brussels, Belgium)
- 02/06/2014: Verkeersdata en -software in het gemeentelijk mobiliteitsbeleid (Mobiliteitsacademie, Vlaamse Stichting Verkeerskunde, Antwerp, Belgium)
- 16/04/2014: A study on co-modality and eco-driving mobility (Transport Research Arena TRA2014, Paris, France)
- 16/04/2014: A behavioural experiment on intelligent road user charging (Transport Research Arena TRA2014, Paris, France)
- 16/04/2014: Models for optimising dynamic urban mobility (MODUM) (Transport Research Arena TRA2014, Paris, France)
- 26/02/2014: De fileproblematiek onder de loep genomen (Case studies: Mathematical Engineering Techniques, Katholieke Universiteit Leuven, Leuven, Belgium)
- 08/11/2013: Congestion under investigation (VLITS seminar, KU Leuven, Leuven, Belgium)
- 31/10/2013: Road User Charging Field Trial in Leuven, MODUM, ECOSTAND, OPTIMISM (Innovations in Transport event at the Manchester Science Festival, United Kingdom)
- 04/10/2013: Towards a Common Template for ITS Action Plans (Interactive session, ITS Belgium Congress, Brussels, Belgium)
- 05/06/2013: A Field Trial on Smart Mobility (European ITS Congress, Dublin, Ireland)
- 27/03/2013: De fileproblematiek onder de loep genomen (Case studies: Mathematical Engineering Techniques, Katholieke Universiteit Leuven, Leuven, Belgium)
- 26/03/2013: ITS in België: Aanstormende Opportuniteiten (Connekt/ITS Netherlands study trip, Antwerp, Belgium)
- 20/03/2013: Parkeren en ITS/ICT (Training day Parking, Vlaamse Stichting Verkeerskunde, Brussels, Belgium)
- 06/03/2013: A Field Trial on Smart Mobility in the Testbed Leuven (Road User Charging Conference 2013, Brussels, Belgium)
- 12/11/2012: Introducing Transport & Mobility Leuven & A Field Trial on Smart Mobility in the Testbed Leuven (New Zealand City Council, Leuven, Belgium)
- 09/11/2012: A Field Trial on Smart Mobility in the Testbed Leuven (VLITS seminar, KU Leuven, Leuven, Belgium)
- 26/10/2012: A Field Trial on Smart Mobility in the Testbed Leuven (19th ITS World Congress, Vienna, Austria)
- 05/10/2012: Kilometerbeprijzing in een stedelijke omgeving (ITS Belgium Congress, Brussels, Belgium)
- 05/10/2012: ITS Action Plans for Cities (Interactive session, ITS Belgium Congress, Brussels, Belgium)
- 21/09/2012: De fileproblematiek onder de loep genomen (Internationaal Wiskunde Toernooi (teachers), Leuven, Belgium)
- 21/09/2012: Files overall... ook in de computer! (Internationaal Wiskunde Toernooi (students), Leuven, Belgium)
- 14/09/2012: Voorstelling TML aan de VRT Verkeersredactie (VRT, Brussels, Belgium)
- 14/06/2012: Impact of the ITS Directive (ITS Action Plans, ITS Belgium, Belgium)
- 04/04/2012: Slimme kilometerheffing in de proeftuin Leuven (VerkeersgedragDag, TNO, The Netherlands)
- 27/03/2012: Verkeerskunde: een samenspel van modellen, simulaties en regelacties (Case studies: Mathematical Engineering Techniques, Katholieke Universiteit Leuven, Leuven, Belgium)
- 22/03/2012: Slimme kilometerheffing in de proeftuin Leuven (Hearing Flemish Parliament, Commission Mobility and Public Works, Brussels, Belgium)
- 21/03/2012: Slimme kilometerheffing in de proeftuin Leuven (Mobiliteitsbeheer vandaag en morgen, Leuven.Inc & VeroTech seminar, Haasrode, Belgium)
- 21/03/2012: Verkeersmanagement in Vlaanderen: algemeen kader en opportuniteiten (Mobiliteitsbeheer vandaag en morgen, Leuven.Inc & VeroTech seminar, Haasrode, Belgium)
- 12/03/2012: The Impact of a Sunday Driving Ban for HGVs in the Walloon Region (Transport & Mobility Leuven (TML) seminar, Leuven, Belgium)
- 02/03/2012: Proeftuin Leuven: voorstelling opzet en resultaten (Kabinet Grouwels, Brussels, Belgium)
- 15/02/2012: Proeftuin Leuven: persvoorstelling (Stad Leuven, Belgium)

- 31/01/2012: Proeftuin Leuven: voorstelling resultaten (Stad Leuven, Belgium)
- 01/12/2011: The impact of a Sunday driving ban for HGVs in the Walloon Region (Vervoerslogistieke Werkdagen, Antwerpen, Belgium)
- 14/10/2011: Potential impact of the ITS Directive (Interactive session, Winner of the Silver Medal for best presentation, ITS Belgium Congress, Brussels, Belgium)
- 14/10/2011: Building Blocks for the ITS Directive (Interactive session, ITS Belgium Congress, Brussels, Belgium)
- 11/04/2011: Mobiliteitsonderzoek België 2010 (NL EVD International, Den Haag, The Netherlands)
- 08/04/2011: Slimme Mobiliteit in de Proeftuin Leuven (Actuasessie Rekeningrijden, VOKA, Brussel, Belgium)
- 23/03/2011: Verkeerskunde: een samenspel van modellen, simulaties en regelacties (Case studies: Mathematical Engineering Techniques, Katholieke Universiteit Leuven, Leuven, Belgium)
- 03/02/2011: Schatting verliestijden op trajecten (State secretary for Mobility Bruno De Lille, Brussel, Belgium)
- 25/10/2010: The Future of ISVAG (confidential, Transport & Mobility Leuven (TML) seminar, Leuven, Belgium)
- 21/10/2010: Product Launch Testbed Smart Mobility Live in Leuven (ITS Belgium Congress, Brussel, Belgium)
- 30/08/2010: iPark4U (Transport & Mobility Leuven (TML) seminar, Leuven, Belgium)
- 07/07/2010: Smart Mobility in the City of Leuven (Australian's National Transport Council, Leuven, Belgium)
- 02/06/2010: Smart Mobility in the City of Leuven (IBM Innovation Week, Brussel, Belgium)
- 22/04/2010: Mobiliteitsbeheersing en rekeningrijden: mobiliteit in Vlaanderen en Leuven (Leuven.inc Themasessie "Mobiliteitsbeheersing en rekeningrijden", Leuven, Belgium)
- 21/04/2010: Leuven: Vlaamse proeftuin voor Intelligente Mobiliteit (Showcase Smart Mobility, Sportoase, Leuven, Belgium)
- 02/03/2010: Verkeerskunde: een samenspel van modellen, simulaties en regelacties (Case studies: Mathematical Engineering Techniques, Katholieke Universiteit Leuven, Leuven, Belgium)
- 14/12/2009: Clustering of Daily Traffic Measurements (Transport & Mobility Leuven (TML) seminar, Leuven, Belgium)
- 30/10/2009: Sustainable parking management: the SUSTAPARK project (POLIS network, Meeting of Working Group on Social and Economic Aspects of Urban Transport, Brussels, Belgium)
- 21/09/2009: Traffic circulation parking Carrefour in Korbeek-Lo (confidential, Transport & Mobility Leuven (TML) seminar, Leuven, Belgium)
- 25/05/2009: SUSTAPARK: Optimising Price and Location of Parking in Cities under a Sustainability Constraint (Transport & Mobility Leuven (TML) seminar, Leuven, Belgium)
- 30/03/2009: Analysis of Congestion in Belgium (Transport & Mobility Leuven (TML) seminar, Leuven, Belgium)
- 03/03/2009: Verkeerskunde: een samenspel van modellen, simulaties en regelacties (Case studies: Mathematical Engineering Techniques, Katholieke Universiteit Leuven, Leuven, Belgium)
- 09/12/2008: Verwachte effecten van uitbreiding van infrastructuur (Hearing Flemish Parliament on expansion R0 ring around Brussels, Brussels, Belgium)
- 08/12/2008: Creative Writing (Transport & Mobility Leuven (TML) seminar, Leuven, Belgium)
- 09/07/2008: Applications of Traffic Modelling (ITS Belgium's TechWatch Seminar, Campusbibliotheek Arenberg, Leuven, Belgium)
- 10/04/2008: Feeding Delicious Data to Hungry Models (Symposium Models and Measurements in Traffic: Perspectives after TGF07, Orsay, Paris, France)
- 04/03/2008: Verkeerskunde: een samenspel van modellen, simulaties en regelacties (Case studies: Mathematical Engineering Techniques, Katholieke Universiteit Leuven, Leuven, Belgium)
- 24/10/2007: SUSTAPARK, Modelleren van een duurzaam parkeerbeleid (ITS Belgium Congress, Brussel, Belgium)
- 18/10/2007: The marginal external costs of congestion based on observed speed-flow data (in cooperation with and presented by Griet De Ceuster, 6th European Transport Conference, Leiden, The Netherlands)
- 19/06/2007: Validation of Travel Times based on Cellular Floating Vehicle Data (6th European Conference and Exhibition on Intelligent Transportation Systems, Aalborg, Denmark)
- 19/02/2007: Verkeerskunde: een samenspel van modellen, simulaties en regelacties (Case studies: Mathematical Engineering Techniques, Katholieke Universiteit Leuven, Leuven, Belgium)
- 11/12/2006: Floating Car Data (Transport & Mobility Leuven (TML) seminar, Leuven, Belgium)
- 27/06/2006: Modelling Traffic on Motorways (Doctoral defence, Katholieke Universiteit Leuven, Leuven, Belgium)
- 05/10/2005: Verkeerskunde: een samenspel van modellen, simulaties en regelacties (not available,

- Case studies of datamining and industrial process control, HK05, Katholieke Universiteit Leuven, Leuven, Belgium)
- 29/04/2005: Real-Time Models of Road Traffic (PhD Doctoral Research Intermediate Evaluation, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 14/04/2005: Verkeerskunde: een samenspel van modellen, simulaties en regelacties (Economische Sectoren en Technologie, D266, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 29/09/2004: Verkeerskunde: een samenspel van modellen, simulaties en regelacties (Case studies of datamining and industrial process control, HK05, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 16/09/2004: Evalueren aan de hand van papers (Duo/Icto summercourse "Doceren in het BaMa tijdperk", Katholieke Universiteit Leuven, Leuven, Belgium)
 - 01/09/2004: Sustainability Effects of Traffic Management Systems (The Transport Science and Technology Congress - TransTec04, Athens Hilton Hotel, Athens, Greece)
 - 26/05/2004: Traffic @ SISTA (SYSTeMS Dialog, University of Gent, Gent, Belgium)
 - 03/05/2004: Models in Aid of Traffic Management (Seminarie transportmodellen ter ondersteuning van het mobiliteits- vervoersbeleid in België, Brussels, Belgium)
 - 28/04/2004: Verkeer @ SISTA (Transport & Mobility Leuven (TML) seminar, Leuven, Belgium)
 - 17/03/2004: Efficient Microscopic Simulation of Large Scale Highway Traffic Flows (23rd Benelux Meeting on Systems and Control, Helvoirt, The Netherlands)
 - 15/03/2004: Verkeerskunde: een Samenspel van Modellen, Simulaties en Regelacties (Economische Sectoren en Technologie, D266, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 14/03/2004: Modelleren, Simuleren en Regelen van Verkeersstromen (Dag van de Technologie, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 05/03/2004: Traffic: an Interplay between Models, Simulations, and Control Actions (Friday Seminar, University of Antwerp, Antwerp, Belgium)
 - 16/11/2003: Development of an Improved Traffic Cellular Automaton Model for Traffic Flows on a Highway Road Network (10th World Congress and Exhibition on Intelligent Transport Systems and Services, Madrid, Spain)
 - 29/10/2003: Modelleren, simuleren en beheersen van verkeersstromen (not available, Case studies of datamining and industrial process control, HK05, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 01/10/2003: A Comparison of a Cellular Automaton and a Macroscopic Model (Workshop on Traffic and Granular Flow 2003, Technical University of Delft, The Netherlands)
 - 16/06/2003: Traffic and Chickens (not available, SISTA Brainstorm Sessions, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 16/05/2003: Academic Oratory Skills - Mastering original and persuasive speech (Academic English, CLT/ILT, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 10/04/2003: SISTA Introduction to Toyoda-San (Toyota) (KU Leuven, Leuven, Belgium)
 - 10/04/2003: Traffic Flow Seminar II: A Survey on the Qualitative Behaviour of Traffic Cellular Automata (SISTA-seminars, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 21/03/2003: Development of a Traffic Cellular Automaton Model for Highway Traffic (22nd Benelux Meeting on Systems and Control, De Vossemeren, Lommel, Belgium)
 - 17/03/2003: Modelleren en simuleren van verkeersstromen (Economische Sectoren en Technologie, D266, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 11/12/2002: Modeling, Simulation and Control of Traffic Flows on a Highway Network (Faculty of Engineering PhD Symposium, Katholieke Universiteit Leuven, Leuven, Belgium; Winner of the "Best Poster Award")
 - 26/11/2002: A Case Study on Traffic Flow Modelling, Simulation and Control (Study Day of the Interuniversity Attraction Poles (IAP), Hôtel Mercure, Louvain-la-Neuve, Belgium)
 - 09/10/2002: Modelleren, simuleren en beheersen van verkeersstromen (not available, Case studies of datamining and industrial process control, HK05, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 06/06/2002: Traffic Flow Seminar I: An introduction to the modeling and simulation of traffic flows (SISTA-seminars, Katholieke Universiteit Leuven, Leuven, Belgium)
 - 21/03/2002: PODO-II - CP/40: Sustainability Effects of Traffic Management Systems (confidential, DWTC ontmoetingsdagen, Brussels, Belgium)