

Dr. Ioannis Papamichail

PERSONAL INFORMATION

Address: School of Production Engineering and Management
Technical University of Crete
GR-73100 Chania, Greece
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email: ipapa@dssl.tuc.gr

Date of birth: 12/02/1976
Place of birth: Toronto, Ontario, Canada
Nationality: Greek, Canadian
Marital status: Married to Angeliki Stathopoulou, two sons and one daughter.

EDUCATION

Imperial College of Science, Technology and Medicine, London, UK 10/1999-12/2002
Department of Chemical Engineering and Chemical Technology
Doctor of Philosophy of the University of London
PhD Thesis: Global optimisation of dynamic systems for chemical engineering applications

Imperial College of Science, Technology and Medicine, London, UK 10/1998-09/1999
Department of Chemical Engineering and Chemical Technology
MSc in Process Systems Engineering with Distinction
MSc Thesis: Optimisation of crystallisation processes in perfectly mixed devices
Diploma of Imperial College in Process Systems Engineering

National Technical University of Athens, Athens, Greece 09/1993-07/1998
Department of Chemical Engineering
Diploma in Chemical Engineering with Distinction, GPA 9.19 / 10.00
Diploma Thesis: Supercritical fluid extraction of celery seed oil using carbon dioxide

PROFESSIONAL POSITIONS

Technical University of Crete, Chania, Greece 09/2016-present
School of Production Engineering and Management
Dynamic Systems and Simulation Laboratory
Associate Professor

University of California, Berkeley, CA, USA 09/2010-01/2011
Institute of Transportation Studies
California Partners for Advanced Transit and Highways (PATH) Program
Short Term Scholar

Technical University of Crete, Chania, Greece 11/2009-09/2016
School of Production Engineering and Management
Dynamic Systems and Simulation Laboratory
Assistant Professor (tenured since 08/2013)

Technical University of Crete, Chania, Greece 09/2005-11/2009
Department of Production Engineering and Management
Dynamic Systems and Simulation Laboratory
Lecturer

Technical University of Crete, Chania, Greece Department of Production Engineering and Management Adjunct Lecturer	09/2004-08/2005
Hellenic Army, Greece Mandatory Military Service Chemical Engineer	02/2003-02/2004
Imperial College of Science, Technology and Medicine, London, UK Centre for Process Systems Engineering Research Assistant	10/1999-12/2002
Hellenic Aspropyrgos Refinery SA, Athens, Greece Student Associate	10/1997-11/1997
Krems Chemie AG – R&D Dept., Krems, Austria Student Associate (International Association for the Exchange of Students for Technical Experience)	07/1997-08/1997
Delta SA - Ice Cream Unit, Athens, Greece Student Associate	07/1996-08/1996

TEACHING AND ACADEMIC ACTIVITIES

Technical University of Crete, Chania, Greece School of Production Engineering and Management	09/2004-present
<ul style="list-style-type: none"> • Lectures on: <ul style="list-style-type: none"> – Advanced Nonlinear Programming (Postgraduate course, since 10/2006) – Data Structures and Algorithms – Introduction to Computer Programming (until 09/2009) – Introduction to Industrial Processes (until 09/2006) – Probability and Statistics for Engineers (until 09/2005) – Project and Production Management and Scheduling (since 09/2009) • Supervisor of 2 PhD students and member of 8 PhD committees • Supervisor of 9 MSc theses and 6 Diploma theses • Advisor of 6 Post-docs • Evaluator of candidate faculty members • Examiner of several PhD, MSc and Diploma theses • Member of the General Assembly of the Department of Production Engineering and Management (since 09/2005) • Member of the Summer Employment Committee of the Department of Production Engineering and Management (09/2006-08/2008) • Member of the Undergraduate Studies Committee of the Department of Production Engineering and Management (09/2007-08/2008) • Departmental coordinator for the ERASMUS program of the Department of Production Engineering and Management (09/2008-08/2010) • Member of the Postgraduate Studies Committee of the Department of Production Engineering and Management (09/2009-08/2010) • Member of the Supplies Reception Committee of the Department of Production Engineering and Management (01/2012-12/2012) • Member of the Computing Center Committee of the Technical University of Crete (since 04/2014) • Member of the Committee for Traffic Issues of the Municipality of Chania (since 2014) • Member of the Research Committee of the Technical University of Crete (since 11/2016) 	

- Member of the Committee on Sustainable Urban Mobility Plan of the Municipality of Chania (since 2019).

Imperial College of Science, Technology and Medicine, London **10/1999-12/2002**

Department of Chemical Engineering and Chemical Technology

- Tutorials on GAMS program
- Teaching assistant for the course "Optimisation Techniques in Advanced Process Synthesis"

PARTICIPATION IN RESEARCH PROGRAMS

TrafficFluid **12/2019-present**

Lane-free artificial-fluid environment for vehicular traffic, Funded by the European Commission, European Research Council Executive Agency, Advanced Investigator Grant with Principal investigator Prof. Markos Papageorgiou.

INFRAMIX **06/2017-05/2020**

Road Infrastructure ready for mixed vehicle traffic, Funded by the European Commission, Horizon 2020 Research and Innovation Action, Automated Road Transport (H2020-ART).

Local4Global **10/2013-12/2016**

Development, application, testing and evaluation of a generic methodology/system for globally optimising Technical Systems of Systems (TSoS) via local control actions, Funded by the European Commission (DG Connect), Cooperation Programme, Information and Communication Technologies (ICT).

COST Action TD1207 **04/2013-03/2017**

Mathematical optimization in the decision support systems for efficient and robust energy networks, Funded by the European Commission COST Programme.

TRAMAN21 **03/2013-02/2018**

Traffic management for the 21st century, Funded by the European Commission, European Research Council Executive Agency, Advanced Investigator Grant with Principal investigator Prof. Markos Papageorgiou.

DIANA - ARCHIMEDES III - 3 **09/2012-09/2014**

Development of novel algorithms and decision support systems for designing urban transport systems, Co-funded by the European Commission and the Greek Government, Ministry of Education.

ARCHIMEDES III - 2 **07/2012-06/2015**

Real time public transport priority, Co-funded by the European Commission and the Greek Government, Ministry of Education.

MCS-PERTH **06/2012-06/2013**

Modelling, configuration and simulation testing for managed freeways pilot project using a meso-model, Funded by the Australian Road Research Board (ARRB Group) as a subcontract for Main Roads Western Australia, **Principal Investigator**.

SMOOTH - ARCHIMEDES III - 1 **03/2012-02/2015**

Development of a software system for automatic selection of macroscopic traffic models for urban and interurban motorways, Co-funded by the European Commission and the Greek Government, Ministry of Education.

ARTS COST Action TU1102 **09/2011-10/2015**

Towards autonomic road transport support systems, Funded by the European Commission COST Programme, Work Group 2 Chair.

AGILE (ICT-2009-257806)**09/2010-12/2013**

Development and applications of advanced adaptive automatic control methods, Funded by the European Commission (DG INFSO), R&D Programme Networked Embedded and Control Systems.

TUC Kifisias – Attiki Odos**05/2009-06/2010**

Application of the traffic signal control strategy TUC to the subnetwork Kifisias – Attiki Odos, Funded by Attiki Odos.

sFLY (ICT-2008-231855)**01/2009-12/2009**

Swarm of micro FLYing robots, Funded by the European Commission (DG INFSO), R&D Programme Information and Communication Technologies.

NEARCTIS (ICT-2008-224272)**07/2008-06/2013**

A Network of Excellence for Advanced Road Cooperative Traffic management in the Information Society, Funded by the European Commission (DG INFSO), R&D Programme Information and Communication Technologies, Task 2.2 Leader.

ANTREOFF**08/2007-12/2008**

Off-line application of the RENAISSANCE tool to the motorway network around Antwerp, Funded by the Mobility and Public Works Department of the Flemish Government (Belgium).

EURAMP (IST-2004-507645)**07/2005-10/2007**

Ramp metering for Motorway Networks, Funded by the European Commission (DG INFSO), R&D Programme Information Society Technologies.

PYTHAGORAS II**07/2005-12/2007**

Development of an integrated motorway network control system and its evaluation via microscopic simulation, Funded by the Greek Government, Ministry of National Education.

Global Optimisation: From Theoretical Foundations to Eng. Tool**10/1999-12/2002**

Funded by the Engineering and Physical Sciences Research Council, UK (GR/R52312/01) in collaboration with BASF AG, BP Ltd and BOC Gases.

EDITORSHIP AND REVIEWING ACTIVITIES**Editorship**

- Viti F., Papamichail I., Menendez M. and Wang M., Guest Editors for the Special Issue on Managing Future Motorway and Urban Traffic Systems, Transportation Research Part C, 2021.
- **Associate Editor** for IEEE Transactions on Intelligent Transportation Systems (since 2016)
- Wang Y., Papamichail I., De Schutter B. and Wang D., Guest Editorial for the Special Issue on Advanced Road Traffic Control, Transportation Research Part C, Vol. 58, pp. 429-430, 2015.
- Member of the Editorial Advisory Board for Transportation Research Part C: Emerging Technologies (since 2013)

Member of the International Program Committee

- 24th IEEE Intelligent Transportation Systems Conference (IEEE ITSC 2021), Indianapolis, IN, USA, September 19-22, 2021.
- 7th International IEEE Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS 2021), Heraklion, Greece, June 16-18, 2021.
- 16th IFAC Symposium on Control in Transportation Systems, Lille, France, June 8-10, 2021.
- IEEE Forum on Intelligent and Sustainable Transportation Systems (ISTS) 2020, Delft, The Netherlands, November 3-5, 2020.

- 23rd IEEE International Conference on Intelligent Transportation Systems (ITSC 2020), Rhodes, Greece, September 20-23, 2020.
- 23rd European Working Group on Transportation 2020 (EWGT 2020), Paphos, Cyprus September 16-18, 2020.
- 21st IFAC World Congress 2020 (Technical Associate Editor), Berlin, Germany, July 12-17, 2020.
- 3rd Symposium on Management of Future motorway and urban Traffic Systems (MFTS 2020), Luxembourg, July 4-5, 2020.
- 22nd IEEE Intelligent Transportation Systems Conference (ITSC 2019), Auckland, New Zealand, October 27-30, 2019.
- 1st IFAC Workshop on Control of Transportation Systems (WCTS 2019), Haifa, Israel, June 30 - July 1, 2019.
- 6th International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS 2019), Kraków, Poland, June 5-7, 2019.
- 21th IEEE Intelligent Transportation Systems Conference (ITSC 2018), Maui, Hawaii, November 4-7, 2018.
- 22nd International Conference on System Theory, Control and Computing, Sinaia, Romania, October 10-12, 2018.
- 2nd Symposium on Management of Future motorway and urban Traffic Systems (MFTS 2018), Ispra, Italy, June 11-12, 2018.
- 15th IFAC Symposium on Control in Transportation Systems, Savona, Italy, June 6-8, 2018.
- 4th International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS), Funchal, Madeira-Portugal, March 16-18, 2018.
- International Conference Automatics and Informatics 2017, Sofia, Bulgaria, October 4-6, 2017.
- 20th IEEE Intelligent Transportation Systems Conference (ITSC 2017), Yokohama, Japan, October 16-19, 2017.
- 3rd International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS), Porto, Portugal, April 23-24, 2017.
- 19th IEEE Intelligent Transportation Systems Conference (ITSC 2016), Rio de Janeiro, Brazil, November 1-4, 2016.
- 19th EURO Working Group on Transportation Meeting (EWGT2016), Istanbul, Turkey, September 5-7, 2016.
- 1st Symposium on Management of Future motorway and urban Traffic Systems (MFTS 2016), Chania, Greece, June 2-3, 2016.
- 14th IFAC Symposium on Control in Transportation Systems, Istanbul, Turkey, May 18-20, 2016.
- 2nd International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS), Rome, Italy, April 23-24, 2016.
- Advanced Computing for Innovation - AComIn 2015, Sofia, Bulgaria, November 10-11, 2015.
- 2015 IEEE International Conference on Vehicular Electronics and Safety (ICVES 2015), Yokohama, Japan, November 5-7, 2015
- 19th International Conference on System Theory, Control and Computing, Cheile Gradistei, Romania, October 14-16, 2015.
- 18th Intern. IEEE Conference on Intelligent Transportation Systems (ITSC 2015), Las Palmas De Gran Canaria, Spain, September 15-18, 2015.
- 17th International IEEE Conference on Intelligent Transportation Systems (ITSC2014), Qingdao, Shandong, China, October 8-11, 2014.
- 16th International IEEE Conference on Intelligent Transportation Systems (ITSC2013), The Hague, The Netherlands, October 6-9, 2013.

- 15th IASTED Conference on Control and Applications (CA2013), Honolulu, Hawaii, USA, August 26-28, 2013.
- 13th IFAC Symposium on Control in Transportation Systems (CTS2012), Sofia, Bulgaria, September 12-14, 2012.
- 14th IASTED Conference on Control and Applications (CA2012), Crete, Greece, July 18-20, 2012.
- Organised/Special Sessions Co-Chair for the 13th International IEEE Conference on Intelligent Transportation Systems (ITSC2010), Madeira Island, Portugal, September 19-22, 2010.
- 12th IASTED Conference on Control and Applications (CA2010), Banff, Alberta, Canada, July 15-17, 2010.
- 11th IASTED Conference on Control and Applications (CA2009), Cambridge, UK, July 13-15, 2009.
- 2008 IEEE International Conference on Systems, Man and Cybernetics (SMC2008), Singapore, October 12-15, 2008.
- 10th IASTED Conference on Control and Applications (CA2008), Quebec City, Quebec, Canada, May 26-28, 2008.
- 2nd International Conference on Performance Evaluation Methodologies and Tools, Valuetools 2007, Nantes, France, October 23-25, 2007.
- 2007 IEEE International Conference on Systems, Man and Cybernetics (SMC2007), Montreal, Canada, October 7-10, 2007.
- 9th IASTED Conference on Control and Applications (CA2007), Montreal, Quebec, Canada, May 30 - June 1, 2007.
- 5th IFAC-DECOM-TT Workshop, Izmir, Turkey, May 17-18, 2007.
- 2006 IEEE International Conference on Systems, Man and Cybernetics (SMC2006), Taipei, Taiwan, October 8-11, 2006.

Reviewing for Journals

- AIChE Journal
- Automatica
- Computers and Chemical Engineering (One of the Top Reviewers in 2012-2013 and Award for Outstanding Contribution in Reviewing, 2015)
- EURO Journal on Transportation and Logistics
- Frontiers of Information Technology & Electronic Engineering
- IEEE Magazine on Intelligent Transportation Systems
- IEEE Open Journal of Intelligent Transportation Systems
- IEEE Transactions on Control Systems Technology
- IEEE Transactions on Intelligent Transportation Systems
- IET Intelligent Transport Systems
- International Journal of Robust and Nonlinear Control
- International Journal of Transportation Science and Technology
- Journal of Global Optimization
- Journal of Transportation Engineering, Part A: Systems
- Operational Research – An International Journal
- Optimal Control, Applications and Methods
- Simulation Modelling Practice and Theory
- Transport Problems – International Scientific Journal
- Transportation Research Part A
- Transportation Research Part B
- Transportation Research Part C
- Transportation Research Record
- Transportmetrica A: Transport Science

Reviewing for Books

- Traffic Simulation, E. Chung and A.-G. Dumont (Editors), EPFL Press, 2009

Reviewing for Conferences

- American Control Conferences
- European Control Conferences
- IASTED Conferences on Control and Applications
- IEEE Conferences on Decision and Control
- IEEE International Conferences on Intelligent Transportation Systems
- IEEE International Conferences on Systems, Man and Cybernetics
- IFAC-DECOM-TT Workshops
- IFAC Symposiums on Control in Transportation Systems
- IFAC World Congresses
- Mediterranean Conferences on Control and Automation
- Transportation Research Board Annual Meetings

ACADEMIC & RESEARCH EVALUATION

Invited external evaluator of candidate faculty members

- National Technical University of Athens, Greece (2020)
- University of Western Macedonia, Greece (2018)

Invited external examiner of doctoral theses

- University of Malta (2019)
- University of Cyprus (2019)

Evaluation of research proposals

- METRANS Transportation Center, USC & CSULB (2018, 2019)
- UCLA Institute of Transportation Studies (2017)

AWARDS - SCHOLARSHIPS

1st prize of Best Conference Paper Award

2020

Awarded at the 2020 IEEE Intelligent Transportation Systems Conference for the paper: Cao J., Hu Y., Manolis D., Zhang S., Wang Y., Guo J., Papamichail I., Papageorgiou M., Zhang L., Hu J., A max pressure approach to urban network signal control with queue estimation using connected vehicle data.

IEEE ITS Outstanding Application Award

2018

Awarder by the IEEE Intelligent Transportation Systems Society to Markos Papageorgiou and the TRAMAN21 Team for contributions in Vehicle Automation and Communication Systems and Applications (member of the team).

Best TRB Freeway Operations Paper Award

2014

Awarded by the Transportation Research Board (TRB) Freeway Operations Committee for the paper: Faulkner L., Dekker F., Gyles D., Papamichail I. and Papageorgiou M., Evaluation of HERO coordinated ramp metering installation at the M1/M3 Freeway in Queensland, Australia.

TRA 2012 Best Paper Award

2012

Awarded at the Transportation Research Arena 2012 for the best paper (in Pillar II: Transport, Mobility and Infrastructure): Keyvan-Ekbatani M., Kouvelas A., Papamichail I. and Papageorgiou M., Congestion control in urban networks via feedback gating.

- IEEE ITS Institutional Lead Award** **2011**
 Awarded by the IEEE Intelligent Transportation Systems Society to the Dynamic Systems and Simulation Laboratory for outstanding contributions and successful implementations in traffic flow modeling and control (member of the Lab since 2005).
- IEEE CSS Transition to Practice Award** **2010**
 Prize awarded by the IEEE Control Systems Society for the development and implementation of ramp metering algorithms, in particular at the Monash Freeway, Melbourne, Australia (received jointly with Prof. Markos Papageorgiou).
- Gold Medal at the YEAR 2010 (Young European Arena of Research) competition** **2010**
 The gold medal (under the Pillar II: Mobility and Intermodality) was awarded to the PhD student Rodrigo Castelan Carlson for the article: Carlson, R.C., Papamichail, I., Papageorgiou, M., A local feedback controller for mainstream traffic flow control using variable speed limits.
- Eugenides Foundation Scholarship** **1998-99**
 Scholarship for postgraduate studies
- Dimitriou Thomaidi Award** **1997-98**
 First on the exams in the Department of Chemical Engineering, NTUA
- Scholarship from the Georgiou Fr. Zografaki Scholarships Foundation** **1997-98**
 First on the exams in the Department of Chemical Engineering, NTUA
- Technical Chamber of Greece Award** **1997-98**
 First on the exams in the Department of Chemical Engineering, NTUA
- Scholarship from the State Scholarships Foundation** **1995-96**
 Third on the 3rd year exams in the Department of Chemical Engineering, NTUA
- Scholarship from the State Scholarships Foundation** **1993-94**
 Second on the 1st year exams in the Department of Chemical Engineering, NTUA
- Nikolaou I. Kritikou Scholarship** **1993-94**
 First on the 1st year exams of Math-related courses in the Department of Chemical Engineering, NTUA

LANGUAGES

Greek: Mother tongue
English: Fluently

COMPUTER SKILLS

Operating systems: MS Windows, UNIX, LINUX
Commercial programs: MS Office, Matlab, LATEX, GAMS, METANET, AMOC, RENAISSANCE, AIMSUN, TUC, SUMO
Programming languages: FORTRAN, C/C++, Visual Basic, Matlab

OTHER INFORMATION

Memberships

- Technical Chamber of Greece (since 03/2004).
- IFAC Technical Committee on Transportation Systems - TC 7.4. (since 06/2009).

Organisation of Special/Tutorial Sessions in Conferences

- Traffic Management for Future Mobility – CAVs in a Mixed Traffic Environment (Workshop session), 23rd IEEE International Conference on Intelligent Transportation Systems (ITSC 2020), Virtual conference, September 20-23, 2020.
- Advances in motorway traffic control (Special session), 18th IEEE International Conference on Intelligent Transportation Systems (ITSC 2015), Las Palmas de Gran Canaria, Spain, September 15-18, 2015.
- Optimal control of motorways (Special session), 20th Conference of the International Federation of Operational Research Societies (IFORS2014), Barcelona, Spain, July 13-18, 2014.
- Variable speed limits for freeway management and control (Special session), 14th International IEEE Conference on Intelligent Transportation Systems (ITSC 2011), Washington, DC, USA, October 5-7, 2011.
- Ramp metering (Special session), 13th International IEEE Conference on Intelligent Transportation Systems (ITSC 2010), Madeira Island, Portugal, September 19-22, 2010.
- Variable speed limits for freeway management and control (Special session), 13th International IEEE Conference on Intelligent Transportation Systems (ITSC 2010), Madeira Island, Portugal, September 19-22, 2010.
- Motorway traffic surveillance and control (Tutorial session), European Control Conference 2007 (ECC07), Kos, Greece, July 2-5, 2007.

PUBLICATIONS

International Journal Papers

- J1. Papamichail I., Louli V. and Magoulas K.
Supercritical fluid extraction of celery seed oil
Journal of Supercritical Fluids, Vol. 18, pp. 213-226, 2000.
- J2. Papamichail I. and Adjiman C.S.
A rigorous global optimization algorithm for problems with ordinary differential equations
Journal of Global Optimization, Vol. 24, pp. 1-33, 2002.
- J3. Papamichail I. and Adjiman C.S.
Global optimization of dynamic systems
Computers and Chemical Engineering, Vol. 28, pp. 403-415, 2004.
- J4. Papamichail I. and Adjiman C.S.
Proof of convergence for a global optimization algorithm for problems with ordinary differential equations
Journal of Global Optimization, Vol. 33, pp. 83-107, 2005.
- J5. Papageorgiou M., Kosmatopoulos E., Papamichail I. and Wang Y.
ALINEA maximizes motorway throughput – An answer to flawed criticism
Traffic Engineering and Control, Vol. 48, pp. 271-276, 2007.
- J6. Papamichail I., Papageorgiou M. and Wang Y.
Motorway traffic surveillance and control
European Journal of Control, Vol. 13, pp. 297-319, 2007.
- J7. Papamichail I. and Papageorgiou M.
Traffic-responsive linked ramp-metering control
IEEE Transactions on Intelligent Transportation Systems, Vol. 9, pp. 111-121, 2008.
- J8. Papageorgiou M., Kosmatopoulos E., Papamichail I. and Wang Y.
A misapplication of the local ramp metering strategy ALINEA
IEEE Transactions on Intelligent Transportation Systems, Vol. 9, pp. 360-365, 2008.

- J9. Papageorgiou M., Papamichail I., Spiliopoulou A.D. and Lentzakis A.F.
Real-time merging traffic control with applications to toll plaza and work zone management
Transportation Research Part C, Vol. 16, pp. 535-553, 2008.
- J10. Papageorgiou M. and Papamichail I.
Overview of traffic signal operation policies for ramp metering
Transportation Research Record: Journal of the Transportation Research Board, No. 2047, pp. 28-36, 2008.
- J11. Papageorgiou M., Kosmatopoulos E. and Papamichail I.
Effects of variable speed limits on motorway traffic flow
Transportation Research Record: Journal of the Transportation Research Board, No. 2047, pp. 37-48, 2008.
- J12. Spiliopoulou A.D., Papamichail I. and Papageorgiou M.
Toll plaza merging traffic control for throughput maximization
Journal of Transportation Engineering - ASCE, Vol. 136, pp. 67-76, 2010.
- J13. Carlson R.C., Papamichail I., Papageorgiou M. and Messmer A.
Optimal mainstream traffic flow control of large-scale motorway networks
Transportation Research Part C, Vol. 18, pp. 193-212, 2010.
- J14. Carlson R.C., Papamichail I., Papageorgiou M. and Messmer A.
Optimal motorway traffic flow control involving variable speed limits and ramp metering
Transportation Science, Vol. 44, pp. 238-253, 2010.
- J15. Papamichail I., Kotsialos A., Margonis I. and Papageorgiou M.
Coordinated ramp metering for freeway networks – A model-predictive hierarchical control approach
Transportation Research Part C, Vol. 18, pp. 311-331, 2010.
- J16. Papamichail I., Papageorgiou M., Vong V. and Gaffney J.
Heuristic ramp-metering coordination strategy implemented at Monash Freeway, Australia
Transportation Research Record: Journal of the Transportation Research Board, No. 2178, pp. 10-20, 2010.
- J17. Spiliopoulou A.D., Manolis D., Papamichail I. and Papageorgiou M.
Queue management techniques for metered freeway on-ramps
Transportation Research Record: Journal of the Transportation Research Board, No. 2178, pp. 40-48, 2010.
- J18. Wang Y., Papageorgiou M., Gaffney J., Papamichail I., Rose G. and Young W.
Local ramp metering in random-location bottlenecks downstream of a metered on-ramp
Transportation Research Record: Journal of the Transportation Research Board, No. 2178, pp. 90-100, 2010.
- J19. Papamichail I. and Papageorgiou M.
Balancing of queues or waiting times on metered dual-branch on-ramps
IEEE Transactions on Intelligent Transportation Systems, Vol. 12, pp. 438-452, 2011.
- J20. Carlson R.C., Papamichail I. and Papageorgiou M.
Local feedback-based mainstream traffic flow control on motorways using variable speed limits
IEEE Transactions on Intelligent Transportation Systems, Vol. 12, pp. 1261-1276, 2011.
- J21. Keyvan-Ekbatani M., Kouvelas A., Papamichail I. and Papageorgiou M.
Exploiting the fundamental diagram of urban networks for feedback-based gating
Transportation Research Part B, Vol. 46, pp. 1393-1403, 2012.

- J22. Carlson R.C., Papamichail I. and Papageorgiou M.
Comparison of local feedback controllers for the mainstream traffic flow on freeways using variable speed limits
Journal of Intelligent Transportation Systems, Vol. 17, pp. 268-281, 2013.
- J23. Christofa E., Papamichail I. and Skabardonis A.
Person-based traffic responsive signal control optimization
IEEE Transactions on Intelligent Transportation Systems, Vol. 14, pp. 1278-1289, 2013.
- J24. Keyvan-Ekbatani M., Papageorgiou M. and Papamichail I.
Urban congestion gating control based on reduced operational network fundamental diagrams
Transportation Research Part C, Vol. 33, pp. 74-87, 2013.
- J25. Carlson R.C., Papamichail I. and Papageorgiou M.
Mainstream traffic flow control on freeways using variable speed limits
Transportes (Rio de Janeiro), Vol. 21, pp. 56-65, 2013.
- J26. Tympakianaki A., Spiliopoulou A., Kouvelas A., Papamichail I., Papageorgiou M. and Wang Y.
Real-time merging traffic control for throughput maximization at motorway work zones
Transportation Research Part C, Vol. 44, pp. 242-252, 2014.
- J27. Wang Y., Kosmatopoulos E., Papageorgiou M. and Papamichail I.
Local ramp metering in the presence of a distant downstream bottleneck: Theoretical analysis and simulation study
IEEE Transactions on Intelligent Transportation Systems, Vol. 15, pp. 2024-2039, 2014.
- J28. Carlson R.C., Papamichail I. and Papageorgiou M.
Integrated feedback ramp metering and mainstream traffic flow control on motorways using variable speed limits
Transportation Research Part C, Vol. 46, pp. 209-221, 2014.
- J29. Faulkner L., Dekker F., Gyles D., Papamichail I. and Papageorgiou M.
Evaluation of HERO-coordinated ramp metering installation at M1 and M3 Freeways in Queensland, Australia
Transportation Research Record: Journal of the Transportation Research Board, No. 2470, pp. 13-23, 2014.
- J30. Iordanidou G.-R., Roncoli, C., Papamichail I. and Papageorgiou M.
Feedback-based mainstream traffic flow control for multiple bottlenecks on motorways
IEEE Transactions on Intelligent Transportation Systems, Vol. 16, pp. 610-621, 2015.
- J31. Diakaki C., Papageorgiou M., Dinopoulou V., Papamichail I. and Malandraki G.
State-of-the-art and -practice review of public transport priority strategies
IET Intelligent Transport Systems, Vol. 9, pp. 391-406, 2015.
- J32. Diakaki C., Papageorgiou M., Papamichail I. and Nikolos I.
Overview and analysis of Vehicle Automation and Communication Systems from a motorway traffic management perspective
Transportation Research Part A, Vol. 75, pp.147-165, 2015.
- J33. Pasquale C., Papamichail I., Roncoli C., Sacone S., Siri S., Papageorgiou M.
Two-class freeway traffic regulation to reduce congestion and emissions via nonlinear optimal control
Transportation Research Part C, Vol. 55, pp. 85-99, 2015.
- J34. Stoilov T., Stoilova K., Papageorgiou M. and Papamichail I.
Bi-level optimization in a transport network
Cybernetics and Information Technologies, Vol. 15(5), pp. 37-49, 2015.

- J35. Roncoli C., Papageorgiou M. and Papamichail I.
Traffic flow optimisation in presence of vehicle automation and communication systems – Part I: A first-order multi-lane model for motorway traffic
 Transportation Research Part C, Vol. 57, pp. 241-259, 2015.
- J36. Roncoli C., Papageorgiou M. and Papamichail, I.
Traffic flow optimisation in presence of vehicle automation and communication systems – Part II: Optimal control for multi-lane motorways
 Transportation Research Part C, Vol. 57, pp. 260-275, 2015.
- J37. Kontorinaki M., Spiliopoulou A., Papamichail I., Papageorgiou M., Tyrinopoulos Y. and Chrysoulakis J.
Overview of nonlinear programming methods suitable for calibration of traffic flow models
 Operational Research: An International Journal, Vol. 15, pp. 327-336, 2015.
- J38. Roncoli C., Papamichail, I. and Papageorgiou M.
Hierarchical model predictive control for multi-lane motorways in presence of Vehicle Automation and Communication Systems
 Transportation Research Part C, Vol. 62, pp. 117-132, 2016.
- J39. Kan Y., Wang Y., Papageorgiou M and Papamichail I.
Local ramp metering with distant downstream bottlenecks: A comparative study
 Transportation Research Part C, Vol. 62, pp. 149-170, 2016.
- J40. Frejo J.R.D., Papamichail I., Papageorgiou M. and Camacho E.F.
Macroscopic modeling and control of reversible lanes on freeways
 IEEE Transactions on Intelligent Transportation Systems, Vol. 17, pp. 948-959, 2016.
- J41. Manolis D., Papamichail I., Kosmatopoulos E.B. and Papageorgiou M.
Automated tuning of ITS management and control systems: Results from real-life experiments
 Transportation Research Part C, Vol. 66, pp. 119-135, 2016.
- J42. Jamshidnejad A., Papamichail I., Papageorgiou M. and De Schutter B.
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- C63. Spiliopoulou A., Papamichail I., Papageorgiou M., Tyrinopoulos Y., Chrysoulakis J.
Calibration of two macroscopic traffic flow models using a genetic algorithm
 11th International Congress on Advances in Civil Engineering (ACE 2014), Istanbul, Turkey, October 21-25, 2014.
- C64. Roncoli C., Papageorgiou M. and Papamichail I.
An optimisation-oriented first-order multi-lane model for motorway traffic
 94th Annual Meeting of the Transportation Research Board, Washington, DC, USA, January 11-15, 2015, paper No. 15-2905.
- C65. Spiliopoulou A., Papamichail I., Papageorgiou M., Tyrinopoulos I. and Chrysoulakis J.
Macroscopic traffic flow calibration using different optimization algorithms
 Transportation Research Procedia, Vol. 6, pp. 144-157, 2015, 4th International Symposium of Transport Simulation, Ajaccio, Corsica, France, June 1-4, 2014.
- C66. Malandraki G., Papamichail I., Papageorgiou M. and Dinopoulou V.
Simulation and evaluation of a public transport priority methodology
 Transportation Research Procedia, Vol. 6, pp. 402-410, 2015, 4th International Symposium of Transport Simulation, Ajaccio, Corsica, France, June 1-4, 2014.
- C67. Jamshidnejad A., Papageorgiou M., Papamichail I. and De Schutter B.
A multi-objective model-predictive control approach dealing with congestion and emissions in urban traffic networks
 Proceedings of the 1st ARTS ECR Conference, La Valletta, Malta, May 27-28, 2015.
- C68. Kepaptsoglou K., Tyrinopoulos Y., Kosmopoulos D. and Papamichail I.
Stimulating environmental considerations in transit route network design through a web-based decision support system
 4th International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS 2015), Budapest, Hungary, June 3-5, 2015.
- C69. Malandraki G., Papamichail I., Dinopoulou V. and Papageorgiou M.
Simulation and evaluation of a public transport priority methodology upon multiple priority requests
 Proceedings of the 4th International Symposium & 26th National Conference on Operational Research, pp. 186-190, Chania, Greece, June 4-6, 2015.

- C70. Manolis D., Diakaki C., Papamichail I. and Papageorgiou M.
Comparative evaluation of two alternative approaches for the decentralized real-time signal control of urban networks
 Proceedings of the 4th International Symposium & 26th National Conference on Operational Research, pp. 196-200, Chania, Greece, June 4-6, 2015.
- C71. Baldi S., Michailidis I., Ntampasi V., Kosmatopoulos E.B., Papamichail I. and Papageorgiou, M.
Simulation-based synthesis for approximately optimal urban traffic light management
 Proceedings of the American Control Conference (ACC2015), pp. 868-873, Chicago, IL, USA, July 1-3, 2015.
- C72. Roncoli C., Papamichail I. and Papageorgiou M.
Model predictive control for motorway traffic with mixed manual and VACS-equipped vehicles
 Transportation Research Procedia, Vol. 10, pp. 452-461, 2015, 18th Euro Working Group on Transportation, EWGT 2015, Delft, The Netherlands, July 14-16, 2015.
- C73. Pasquale C., Papamichail I., Roncoli C., Sacone S., Siri S. and Papageorgiou M.
A nonlinear optimal control approach for two-class freeway traffic regulation to reduce congestion and emissions
 Proceedings of the 2015 European Control Conference (ECC), pp. 2651-2656, Linz, Austria, July 15-17, 2015.
- C74. Tyrinopoulos Y., Pternea M., Kepaptsoglou K., Kosmopoulos D., Papageorgiou M. and Papamichail I.
Assisting transit operators in designing sustainable bus route networks
 Proceedings 7th International Congress on Transportation Research in Greece (Πρακτικά 7^ο Διεθνές Συνέδριο για την Έρευνα στις Μεταφορές στην Ελλάδα), Athens, Greece, November 5-6, 2015.
- C75. Jamshidnejad A., Papamichail I., Papageorgiou M. and De Schutter B.
A model-predictive urban traffic control approach with a modified flow model and endpoint penalties
 Proceedings 14th IFAC Symposium on Control in Transportation Systems (CTS 2016), pp. 147-152, Istanbul, Turkey, May 18-20, 2016.
- C76. Iordanidou G.-R., Papamichail I., Roncoli C. and Papageorgiou M.
Integrated motorway traffic flow control with delay balancing
 Proceedings 14th IFAC Symposium on Control in Transportation Systems (CTS 2016), pp. 315-322, Istanbul, Turkey, May 18-20, 2016.
- C77. Jamshidnejad A., Papamichail I., Hellendoorn H., Papageorgiou M. and De Schutter, B.
Gradient-based model-predictive control for green urban mobility in traffic networks.
 Proceedings of 2016 IEEE 19th International Conference on Intelligent Transportation Systems, pp. 1077-1082, Rio de Janeiro, Brazil, November 1-4, 2016.
- C78. Fountoulakis M., Bekiaris-Liberis N., Roncoli C., Papamichail I. and Papageorgiou M.
Highway traffic state estimation with mixed connected and conventional vehicles: Microscopic simulation-based testing.
 Proceedings of 2016 IEEE 19th IEEE International Conference on Intelligent Transportation Systems, pp. 1761-1766, Rio de Janeiro, Brazil, November 1-4, 2016.
- C79. Manolis M., Pappa T., Diakaki C., Papamichail I. and Papageorgiou M.
Simulation study of centralized vs decentralized approaches to the signal control of large-scale urban networks.
 96th Annual Meeting of the Transportation Research Board, Washington, DC, USA, January 8-12, 2017, paper No. 17-2323.

- C80. Manolis D., Michailidis I., Diakaki C., Papamichail I., Kosmatopoulos E. and Papageorgiou M.
Simulation study of an adaptive decentralized approach for the optimization of traffic control systems
 6th International Symposium and 28th National Conference on Operation Research, pp. 85-90, Thessaloniki, Greece, June 8-10, 2017.
- C81. Papamichail I., Iordanidou G.-R., Roncoli C. and Papageorgiou M.
Integrated motorway traffic flow control
 8th International Congress on Transportation Research in Greece, Thessaloniki, Greece, September 27-29, 2017.
- C82. Manolis D., Diakaki C., Papamichail I. and Papageorgiou M.
Simulation investigations of the coordinated traffic-responsive signal control strategy TUC with actuation at the local junction level
 8th International Congress on Transportation Research, Thessaloniki, Greece, September 27-29, 2017.
- C83. Papadopoulou S., Roncoli C., Bekiaris-Liberis N., Papamichail I. and Papageorgiou M.
Validation of a per-lane traffic state estimation scheme for highways with connected vehicles
 2017 IEEE 20th International Conference on Intelligent Transportation Systems (ITSC), pp. 1053-1059, Yokohama, Japan, October 16-19, 2017.
- C84. Perraki G., Roncoli C., Papamichail I. and Papageorgiou M.
Evaluation of an MPC strategy for motorway traffic comprising connected and automated vehicles
 2017 IEEE 20th International Conference on Intelligent Transportation Systems (ITSC), pp. 2315-2321, Yokohama, Japan, October 16-19, 2017.
- C85. Typaldos P., Papamichail I. and Papageorgiou M.
Minimization of fuel consumption for vehicle trajectories
 97th Annual Meeting of the Transportation Research Board, Washington, DC, USA, January 7-11, 2018, paper No. 18-3953.
- C86. Wang L., Guo J., Ye F., Perraki G., Liu Y., Papamichail I., Wang Y. and Papageorgiou, M.
Traffic flow characteristics with Cooperative Adaptive Cruise Control: An intensive study using enhanced AIMSUN
 97th Annual Meeting of the Transportation Research Board, Washington, DC, USA, January 7-11, 2018, paper No. 18-2191.
- C87. Papamichail I., Papageorgiou M. and Stamatakis I.
Feedback traffic control at highway work zones using variable speed limits
 15th IFAC Symposium on Control in Transportation Systems, Savona, Italy, June 6-8, 2018, pp. 329-336.
- C88. Frejo J.R.D., Papamichail I., Papageorgiou M. and De Schutter B.
A new macroscopic model for variable speed limits
 15th IFAC Symposium on Control in Transportation Systems, Savona, Italy, June 6-8, 2018, pp. 343-348.
- C89. Markantonakis V., Skoufoulas D.I., Papamichail I. and Papageorgiou M.
Integrated traffic control for freeways using variable speed limits and lane change control actions
 98th Annual Meeting of the Transportation Research Board, Washington, DC, USA, January 13-17, 2019, paper No. 19-3865.

- C90. Ye F., Wang L., Wang Y., Guo J., Papamichail I. and Papageorgiou M.
A reinforcement learning approach to smart lane changes of self-driving cars
 Progress in Artificial Intelligence, P. Moura Oliveira, P. Novais, L.P. Reis, Editors,
 Springer, 2019, pp. 559-571, 19th EPIA Conference on Artificial Intelligence (EPIA2019),
 Vila Real, Portugal, September 3-6, 2019.
- C91. Typaldos P., Mountakis K.S., Papageorgiou M. and Papamichail I.
Optimization-based path planning for automated vehicles
 9th International Congress on Transportation Research, Athens, Greece, October 24-
 25, 2019, paper No. 18.
- C92. Wang L., Ye F., Wang Y., Guo J., Papamichail I., Papageorgiou M., Hu S. and Zhang
 L.
*A Q-learning foresighted approach to ego-efficient lane changes of connected and
 automated vehicles on freeways*
 2019 IEEE International Conference on Intelligent Transportation Systems, Auckland,
 New Zealand, October 27-30, 2019, pp. 1385-1392.
- C93. Piacentini G., Ferrara A., Papamichail I. and Papageorgiou M.
*Highway traffic control with moving bottlenecks of connected and automated vehicles
 for travel time reduction*
 58th Conference on Decision and Control (CDC 2019), Nice, France, December 11-13,
 2019.
- C94. Almérás C., Buisson C., Olstam J., Papamichail I., Ponweiser W. and Wagner P.
*Zero crashes, zero congestion, and zero emissions – Future research in traffic
 management*
 Transport Research Arena 2020, Helsinki, Finland, April 27-30, 2020.
 (Conference canceled)
- C95. Cao J., Hu Y., Diamantis M., Zhang S., Wang Y., Guo J., Papamichail I., Papageorgiou
 M., Zhang L. and Hu J.
*A max pressure approach to urban network signal control with queue estimation using
 connected vehicle data*
 2020 IEEE Intelligent Transportation Systems Conference (ITSC), pp. 612-619,
 Rhodes, Greece, September 20-23, 2020.
 (Virtual conference)
- C96. Zhang S., Diamantis M., Wang Y., Guo J., Papamichail I., Papageorgiou M., Zhang L.
 and Hu J.
*Joint queue estimation and max pressure control for signalized urban networks with
 connected vehicles*
 2020 Forum on Integrated and Sustainable Transportation Systems (FISTS), pp. 211-
 217, Delft, The Netherlands, November 3-5, 2020.
 (Virtual conference)

Scientific Presentations (presented by *)

- P1. Papamichail I.*, Boukouvalas C., Magoulas K. and Tassios D.
Supercritical fluid extraction applications (Εφαρμογές της υπερκρίσιμης εκχύλισης)
 2nd Symposium of the Institute of Physical Chemistry: Research and Technology in
 Chemistry, NCSR "DEMOKRITOS", Athens, Greece, December 3-5, 1997.
- P2. Folas G., Papamichail I., Louli V.*, Boukouvalas C. and Magoulas K.
Supercritical CO₂ extraction of celery and parsley seed oil
 17th European Seminar on Applied Thermodynamics, Vilamoura, Portugal, May 13-16,
 1999.

- P3. Papamichail I.
Global optimisation of DAE systems
Annual Consortium Meeting, Centre for Process Systems Engineering, London, UK, September 2000.
- P4. Papamichail I.
Global optimisation of ODE systems
Annual Consortium Meeting, Centre for Process Systems Engineering, London, UK, September 2001.
- P5. Papamichail I.* and Adjiman C.S.
A global optimization algorithm for systems described by ODEs
AIChE Annual Meeting, Reno, November 4-9, 2001.
- P6. Papamichail I.* and Adjiman C.S.
A global optimization algorithm for optimal control and parameter estimation problems
SIAM Conference on Optimization, Toronto, Canada, May 20-22, 2002.
- P7. Papamichail I.* and Adjiman C.S.
A new convex relaxation for systems described by ordinary differential equations
AIChE Annual Meeting, Indianapolis, November 3-8, 2002.
- P8. Adjiman C.S.* and Papamichail I.
A deterministic global optimization algorithm for problems with nonlinear dynamics
4th International Conference on Frontiers in Global Optimization, Santorini, June 8-12, 2003.
- P9. Adjiman C.S.* and Papamichail I.
Deterministic global optimization algorithm and nonlinear dynamics
Global Optimization Theory Institute, Argonne National Laboratory, Argonne, IL, USA, September 8-10, 2003.
- P10. Papageorgiou M.*, Papamichail I., Margonis I. and Kotsialos A.
Optimal coordinated ramp metering for freeway networks
21st European Conference on Operational Research (EURO XXI), Reykjavik, Iceland, July 2-5, 2006.
- P11. Papageorgiou M.*, Papamichail I., Messmer A. and Carlson R.C.
Optimal mainstream traffic flow control of large-scale motorway networks
11th International IEEE Conference on ITS, Beijing, China, October 12-15, 2008.
- P12. Carlson R.C., Papamichail I., Papageorgiou M.* and Messmer A.
Optimal mainstream traffic flow control of large scale motorway networks
2nd NEARCTIS Workshop, University College London, London, UK, November 13, 2009.
- P13. Carlson R.C.*, Papamichail I., Papageorgiou M.
Local feedback-based mainstream traffic flow control on motorways using variable speed limits
3rd NEARCTIS Workshop, EPFL, Lausanne, Switzerland, June 11, 2010.
- P14. Papamichail I.* and Papageorgiou M.
Coordinated ramp metering strategy HERO: Field implementation at the Monash freeway in Melbourne, Australia
Invited talk, TOPL Group Meeting, University of California at Berkeley, CA, USA, October 8, 2010.
- P15. Papamichail I.* and Papageorgiou M.
Coordinated ramp metering strategy HERO: Field implementation at the Monash freeway in Melbourne, Australia
Invited talk, SENSYS Networks Inc., Berkeley, CA, USA, November 23, 2010.

- P16. Ekbatani M.K.* , Kouvelas A., Papamichail I., Papageorgiou M.
Congestion control in urban networks under saturated conditions via feedback gating
 4th NEARCTIS Workshop, IFSTTAR, Lyon, France, June 10, 2011.
- P17. Carlson R.C.* , Papamichail I., Papageorgiou M.
Mainstream traffic flow control on motorways using variable speed limits
 Workshop "Dynamic Traffic Management in Belgium: can we take more out of variable speed limits?", 2nd International Conference on Models and Technologies for ITS, Leuven, Belgium, June 24, 2011.
- P18. Papamichail I.
Traffic control using microscopic simulation tools
 Invited lecture, 4th MULTITUDE Summer School 2013, Maria Tsakos Foundation, Chios, Greece, September 5, 2013.
- P19. Kouvelas A., Manolis D., Kosmatopoulos E.B., Papamichail I.* and Papageorgiou M.
A fully-autonomic methodology for embedding self-tuning competence in online traffic control systems
 1st International Systems Competition on Autonomic Features and Technologies for Road Traffic Flow Modelling and Control System, The Hague, The Netherlands, October 9, 2013.
- P20. Roncoli C.* , Papageorgiou M. and Papamichail I.
Optimisation of multi-lane motorways in presence of vehicle automation and communication systems
 20th Conference of the International Federation of Operational Research Societies (IFORS), Barcelona, Spain, July 13-18, 2014.
- P21. Kouvelas A., Manolis D., Kosmatopoulos E.B., Papamichail I.* and Papageorgiou M.
An autonomic methodology for embedding self-tuning competence in online traffic control systems – Field results for the urban network of Chania, Greece
 COST ARTS Workshop WGs 2 and 3, Sofia, Bulgaria, September 11, 2014.
- P22. Papageorgiou M.* , Diakaki C., Iordanidou G.R., Karafyllis I., Nikolos I., Ntousakis I.A., Papamichail. I. and Roncoli C.
Traffic management in presence of Vehicle Automation and Communication Systems: the project TRAMAN21
 94th Annual Meeting of the Transportation Research Board, Washington, DC, USA, January 11-15, 2015.
- P23. Papamichail I.
Integrated feedback-based ramp metering and mainstream traffic flow control for multiple bottlenecks on motorways
 Invited presentation, IPAM Workshop III: Traffic Control, Institute of Pure and Applied Mathematics (IPAM), University of California at Los Angeles, Los Angeles, CA, USA, October 29, 2015.
- P24. Papamichail I.
Feedback-based integrated motorway traffic flow control
 Invited plenary talk, International Conference on Advanced Computing for Innovation – ACOMIN2015, Sofia, Bulgaria, November 10, 2015.
- P25. Iordanidou G.-R., Papamichail I.* , Roncoli C. and Papageorgiou M.
Feedback-based integrated motorway traffic flow control
 1st Symposium on Management of Future motorway and urban Traffic Systems (MFTS 2016), Chania, Greece, June 2-3, 2016.
- P26. Manolis D., Michailidis I., Diakaki C.* , Papamichail I., Kosmatopoulos E. and Papageorgiou M.
 Simulation study of an adaptive decentralised approach for the signal control of large-scale urban traffic networks

- 5th Symposium of the European Association for Research in Transportation (hEART), Delft, The Netherlands, September 13-16, 2016.
- P27. Manolis D., Papamichail I. and Papageorgiou M.*
Automated tuning of ITS algorithms: Results from real-life application
2nd ITS Hellas Conference on Intelligent Transport Systems and Developments in Greece, Athens, Greece, December 19-20, 2016.
- P28. Typaldos P., Mountakis K.S.*, Papageorgiou M. and Papamichail I.
MPC-based optimal path planning for automated vehicles in realistic simulation
2nd Symposium on Management of Future motorway and urban Traffic Systems (MFTS 2018), Ispra, Italy, June 11-12, 2018.
- P29. Typaldos P.*, Papamichail I. and Papageorgiou M.
Minimization of fuel consumption for vehicle trajectories
2nd Symposium on Management of Future motorway and urban Traffic Systems (MFTS 2018), Ispra, Italy, June 11-12, 2018.
- P30. Markantonakis V.*, Skoufoulas D., Papamichail I. and Papageorgiou M.
Integrated motorway traffic control using variable speed limits and lane change control
2nd Symposium on Management of Future motorway and urban Traffic Systems (MFTS 2018), Ispra, Italy, June 11-12, 2018.
- P31. Stylianopoulou E., Kontorinaki M., Papageorgiou M. and Papamichail I.*
A linear quadratic integral regulator for local ramp metering in the case of distant downstream bottlenecks
7th Symposium of the European Association for Research in Transportation (hEART 2018), Athens, Greece, September 5-7, 2018.
- P32. Papamichail I.
Road Infrastructure ready for mixed vehicle traffic flows
Invited presentation, Webinar on Scientific Exchange in Traffic Management organized by ECTRI Thematic Group on Traffic Management, January 22, 2019.
- P33. Papageorgiou M.*, Kalogianni I., Makantasis M., Mountakis K.-S., Nikolos I., Ntousakis I., Papamichail I. and Typaldos P.
Optimal control approaches to vehicle trajectory planning
6th International Conference on Models and Technologies for Intelligent Transportation Systems, Kraków, Poland, June 5-7, 2019.
- P34. Typaldos P.*, Kalogianni I., Mountakis K., Papamichail I. and Papageorgiou, M.
Vehicle trajectory specification in presence of traffic lights with known or uncertain switching times
99th Annual Meeting of the Transportation Research Board, Washington, DC, USA, January 12-16, 2020.
- P35. Zhang S., Diamantis M., Wang Y.*, Cao J., Hu Y., Guo J., Papamichail I., Papageorgiou M., Zhang L. and Hu S.
Joint queue estimation and max-pressure control for signalized urban networks with connected vehicles
99th Annual Meeting of the Transportation Research Board, Washington, DC, USA, January 12-16, 2020.
- P36. Wang Y.*, Guo J., Zhao M., Hu Y., Papamichail I., Papageorgiou M., Bertini R.
What if many smart cars conduct ego-efficient lane changes in traffic flow: An answer provided by reinforcement learning
99th Annual Meeting of the Transportation Research Board, Washington, DC, USA, January 12-16, 2020.

- P37. Typaldos P.*, Papageorgiou M. and Papamichail I.
Path-planning for automated vehicles in a cooperative framework
 3rd Symposium on Management of Future Motorway and Urban Traffic Systems (MFTS 2020), Luxemburg, July 6-7, 2020. (Virtual conference)
- P38. Doko A., Markantonakis V., Papamichail I.*, Papageorgiou M., Schrab K., Neubauer M. and Protzmann R.
A dynamic lane assignment strategy for mixed vehicle traffic – A simulation-based investigation
 3rd Symposium on Management of Future Motorway and Urban Traffic Systems (MFTS 2020), Luxemburg, July 6-7, 2020. (Virtual conference)
- P39. Markantonakis V.*, Doko A., Papamichail I., Papageorgiou M., Schrab K., Neubauer M. and Protzmann R.
Traffic control algorithms for mixed vehicle traffic – A simulation-based investigation
 3rd Symposium on Management of Future Motorway and Urban Traffic Systems (MFTS 2020), Luxemburg, July 6-7, 2020. (Virtual conference)
- P40. Wang Y.*, Papamichail I. and Papageorgiou M.
Ego-efficient lane changes of smart vehicles with impacts on traffic flow
 3rd Symposium on Management of Future Motorway and Urban Traffic Systems (MFTS 2020), Luxemburg, July 6-7, 2020. (Virtual conference)
- P41. Papamichail I.
Panel Discussion on Autonomous vs. human drivers: What will be the right mix?
 Invited participation, 3rd Symposium on Management of Future Motorway and Urban Traffic Systems (MFTS 2020), Luxemburg, July 6-7, 2020. (Virtual conference)
- P42. Papamichail I.*, Markantonakis V., Doko A., Papageorgiou M., Schrab K., Neubauer M. and Protzmann R.
Traffic control algorithms for mixed vehicle traffic
 Invited presentation, Tutorial Session on "Innovative topics and future challenges in traffic control", 1st Virtual IFAC World Congress (IFAC-V 2020), July 13-17, 2020.
- P43. Malekzadeh M.*, Papageorgiou M., Papamichail I. and Bogenberger K.
Optimal control of internal road boundary for lane-free automated vehicle traffic
 Invited presentation, Workshop on "Network impacts of emerging mobility trends", 2020 IEEE Intelligent Transportation Systems Conference (ITSC), Rhodes, Greece, September 20-23, 2020. (Virtual conference)
- P44. Typaldos P.*, Kalogianni I, Mountakis K.S., Papageorgiou M. and Papamichail I.
Online road vehicle trajectory specification in presence of traffic lights with stochastic switching times
 Invited presentation, Workshop on "Traffic management for future mobility - CAVs in a mixed traffic environment", 2020 IEEE Intelligent Transportation Systems Conference (ITSC), Rhodes, Greece, September 20-23, 2020. (Virtual conference)

Research and Development Reports

- R1. Papageorgiou M., Papamichail I. and partners of the Information Society Project EURAMP (IST-2004-507645)
Network-wide ramp metering
 Deliverable 3.3, Report for the IST Office, Brussels, Belgium, August 2006.
- R2. Papageorgiou M., Papamichail I. and partners of the Information Society Project EURAMP (IST-2004-507645)
Network-wide ramp metering prototype
 Deliverable 3.4, Report for the IST Office, Brussels, Belgium, October 2006.

- R3. Papageorgiou M., Kosmatopoulos E., Protopappas M. and Papamichail I.
Effects of variable speed limits (VSL) on motorway traffic – Results obtained from M42 data
Internal Report 2006-25, Dynamic Systems and Simulation Laboratory, Technical University of Crete, Chania, Greece, October 2006.
- R4. Papageorgiou M. and Papamichail I.
Handbook of ramp metering
Deliverable 7.5, Report of the Information Society Project EURAMP (IST-2004-507645), IST Office, Brussels, Belgium, April 2007.
- R5. Papageorgiou M., Papamichail I. and partners of the Information Society Project EURAMP (IST-2004-507645)
Technology implementation plan (Updated dissemination and use plan)
Deliverable 7.4, Report for the IST Office, Brussels, Belgium, July 2007.
- R6. Papamichail I., Papageorgiou M. and Kosmatopoulos E.
Modelling, configuration and simulation testing for the VicRoads ramp metering pilot project – Final report
Prepared for VicRoads, Melbourne, Australia, September 2007.
- R7. Tampere C.M.J., Lentzakis A.F., Papageorgiou M. and Papamichail I.
Off-line application of the motorway traffic surveillance tool RENAISSANCE to a motorway network around Antwerp
Report for Ministerie van het Vlaams Gewest, Department Mobiliteit en Openbare Werken, Vlaams Verkeerscentrum, Belgium, February 2009.
- R8. Papamichail I. and Papageorgiou M.
Balancing of queues or waiting times on dual-branch on-ramps
Report for VicRoads, Melbourne, Australia, June 2009.
- R9. Wang Y., Papageorgiou M., Gaffney J., Papamichail I., Rose G. and Young W.
Local ramp metering in the presence of random-location bottlenecks downstream of a metered ramp
Report for VicRoads, Melbourne, Australia, July 2009.
- R10. Papageorgiou M., Papamichail I. and partners of the DG INFISO Project NEARCTIS (ICT-2008-224272)
Review of available case studies and related scientific knowledge
Deliverable 7, Report for the ICT Office, Brussels, Belgium, September 2009.
- R11. Papageorgiou M. and Papamichail I.
High-level proof-of-concept for the application of the HERO coordinated ramp metering scheme to a field test at A10
Report for Rijkswaterstaat, The Netherlands, September 2009.
- R12. Papamichail I., Papageorgiou M. and partners of the DG INFISO Project NEARCTIS (ICT-2008-224272)
Identification of successes, gaps and potential for improvements in traffic management applications
Deliverable 8, Report for the ICT Office, Brussels, Belgium, July 2010.
- R13. Kouvelas A., Papamichail I., Papageorgiou M. and partners of the DG INFISO Project AGILE (ICT-2009-257806)
ConvCD distributed optimization software tool for providing arbitrary-close-to-optimal and scalable LSCS design
Deliverable 2.2, Report for the ICT Office, Brussels, Belgium, September 2011.
- R14. Kouvelas A., Papamichail I., Papageorgiou M. and partners of the DG INFISO Project AGILE (ICT-2009-257806)
Description of the AGILE integrated system
Deliverable 3.2, Report for the ICT Office, Brussels, Belgium, September 2011.

- R15. Papamichail I., Papageorgiou M. and partners of the DG INFSO Project NEARCTIS (ICT-2008-224272)
Specifications and evaluation approaches for possible case studies
Deliverable 15, Report for the ICT Office, Brussels, Belgium, May 2012.
- R16. Diakaki C., Dinopoulou V., Papamichail I. and Papageorgiou M.
Public transport priority in real time: A state of the art and practice review.
Deliverable 1, Technical Report prepared for the Project "Real time public transport priority", ARCHIMEDES III, Athens, February 2013.
- R17. Papamichail I., Iordanidou G.-R., Spiliopoulou A. and Papageorgiou M.
Modelling, configuration and simulation testing for the Main Roads managed freeways pilot project – Final Report
Prepared for Main Roads Western Australia, Perth, Australia, March 2013.
- R18. Chrysoulakis J., Papageorgiou M., Papamichail I., Tyrinopoulos Y., Kontorinaki M. and Ponta E.
Overview and selection of nonlinear programming methods (in greek)
Deliverable 2.1. Technical Report for the Project SMOOTH, ARCHIMEDES III, Athens, June 2013.
- R19. Dinopoulou V., Diakaki C., Papamichail I. and Papageorgiou, M.
PTP methodology/software development
Deliverable 2.1, Technical Report prepared for the Project "Real time public transport priority", ARCHIMEDES III, Athens, September 2013.
- R20. Malandraki G., Papamichail I., Papageorgiou M. and Dinopoulou V.
Public transport priority in real time: Simulation and evaluation of a PTP methodology
Deliverable 3, Technical Report prepared for the Project "Real time public transport priority", ARCHIMEDES III, Athens, November 2013.
- R21. Karlaftis M.G., Papageorgiou M., Vlahogianni E.I. and Papamichail, I.
Analysis and recommendations for traffic data collection and forecasting in Bulgaria
World Bank Report, February 2014.
- R22. Papageorgiou M., Karlaftis M.G., Vlahogianni E.I. and Papamichail, I.
Traffic management in Bulgaria: Analysis and recommendations
World Bank Report, February 2014.
- R23. Diakaki C., Papageorgiou M., Papamichail I., Nikolos I., Iordanidou G.-R. and Porfyri K.
Overview and analysis of vehicle automation and communication systems from a motorway traffic management perspective
Deliverable 1, Technical Report for the ERC Advanced Grant TRAMAN21, Chania, Greece, May 2014.
- R24. Spiliopoulou A., Papamichail I., Papageorgiou M. and Chrysoulakis, J.
CALISTO user's manual
Deliverable 4.1, Technical Report for the Project SMOOTH, ARCHIMEDES III, Athens, July 2014.
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