

Dr. Ioannis Papamichail

PERSONAL INFORMATION

Address: School of Production Engineering and Management
Technical University of Crete
GR-73100 Chania, Greece

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Fax: +30 2821037584
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 student and member of 7 PhD committees • Supervisor of 9 MSc theses and 5 Diploma theses • 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

INFRAMIX

06/2017-present

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

04/2013-3/2017

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 INFOS), 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**

- 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

- 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.
- IEEE Forum on Intelligent and Sustainable Transportation Systems (ISTS) 2020, Delft, The Netherlands, June 30 - July 2, 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)
- Frontiers of Information Technology & Electronic Engineering
- IEEE Magazine on 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
- Simulation Modelling Practice and Theory
- Transport Problems – International Scientific Journal
- 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 Symposia 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

- University of Western Macedonia (2018)

Invited external examiner of doctoral theses

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

Evaluation of research proposals

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

AWARDS - SCHOLARSHIPS

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 Chemical Engineering Department of NTUA

Scholarship from the Georgiou Fr. Zografaki Scholarships Foundation **1997-98**

First on the exams in the Chemical Engineering Department of NTUA

Technical Chamber of Greece Award **1997-98**

First on the exams in the Chemical Engineering Department of NTUA

Scholarship from the State Scholarships Foundation **1995-96**

Third on the 3rd year exams in the Chemical Engineering Department of NTUA

Scholarship from the State Scholarships Foundation **1993-94**

Second on the 1st year exams in the Chemical Engineering Department of NTUA

Nikolaou I. Kritikou Scholarship **1993-94**

First on the 1st year exams of Math-related courses in the Chemical Engineering Department of 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

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

- 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.
A mesoscopic integrated urban traffic flow-emission model
Transportation Research Part C, Vol. 75, pp. 45-83, 2017.
- J43. 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
Transportation Research Part C, Vol. 78, pp. 13-33, 2017.
- J44. Spiliopoulou A., Papamichail I., Papageorgiou M., Tyrinopoulos Y. and Chrysoulakis J.
Macroscopic traffic flow model calibration using different optimization algorithms
Operational Research: An International Journal, Vol. 17, pp. 145-164, 2017.

- J45. Iordanidou G.-R., Papamichail I., Roncoli, C. and Papageorgiou M.
Feedback-based integrated motorway traffic flow control with delay balancing
IEEE Transactions on Intelligent Transportation Systems, Vol. 18, pp. 2319-2329, 2017.
- J46. Spiliopoulou A., Kontorinaki M., Papamichail I. and Papageorgiou M.
Real-time route diversion control at congested freeway off-ramp areas
Transportation Research Part A, Vol. 107, pp. 90-105, 2018.
- J47. Papadopoulou S., Roncoli C., Bekiaris-Liberis N., Papamichail I. and Papageorgiou M.
Microscopic simulation-based validation of a per-lane traffic state estimation scheme for highways with connected vehicles
Transportation Research Part C, Vol. 86, pp. 441-452, 2018.
- J48. Jamshidnejad A., Papamichail I., Papageorgiou M. and De Schutter, B.
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- C73. Pasquale C., Papamichail I., Roncoli C., Sacone S., Siri S. and Papageorgiou M.
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- C76. Iordanidou G.-R., Papamichail I., Roncoli C. and Papageorgiou M.
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- 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.
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- C78. Fountoulakis M., Bekiaris-Liberis N., Roncoli C., Papamichail I. and Papageorgiou M.
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- C79. Manolis M., Pappa T., Diakaki C., Papamichail I. and Papageorgiou M.
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- C80. Manolis D., Michailidis I., Diakaki C., Papamichail I., Kosmatopoulos E. and Papageorgiou M.
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- C81. Papamichail I., Iordanidou G.-R., Roncoli C. and Papageorgiou M.
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- C82. Manolis D., Diakaki C., Papamichail I. and Papageorgiou M.
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- C84. Perraki G., Roncoli C., Papamichail I. and Papageorgiou M.
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- C86. Wang L., Guo J., Ye F., Perraki G., Liu Y., Papamichail I., Wang Y. and Papageorgiou, M.
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- C87. Papamichail I., Papageorgiou M. and Stamatakis I.
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- C90. Ye F., Wang L., Wang Y., Guo J., Papamichail I. and Papageorgiou M.
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- C91. Typaldos P., Mountakis K.S., Papageorgiou M. and Papamichail I.
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- C92. Wang L., Ye F., Wang Y., Guo J., Papamichail I., Papageorgiou M., Hu S. and Zhang L.
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- C93. Piacentini G., Ferrara A., Papamichail I. and Papageorgiou M.
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Scientific Presentations (presented by *)

- P1. Papamichail I.*, Boukouvalas C., Magoulas K. and Tassios D.
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 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.
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 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.
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 Annual Consortium Meeting, Centre for Process Systems Engineering, London, UK, September 2001.
- P5. Papamichail I.* and Adjiman C.S.
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 AIChE Annual Meeting, Reno, November 4-9, 2001.
- P6. Papamichail I.* and Adjiman C.S.
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 SIAM Conference on Optimization, Toronto, Canada, May 20-22, 2002.
- P7. Papamichail I.* and Adjiman C.S.
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 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.
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 Global Optimization Theory Institute, Argonne National Laboratory, Argonne, IL, USA, September 8-10, 2003.
- P10. Papageorgiou M.*, Papamichail I., Margonis I. and Kotsialos A.
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- P11. Papageorgiou M.*, Papamichail I., Messmer A. and Carlson R.C.
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- P12. Carlson R.C., Papamichail I., Papageorgiou M.* and Messmer A.
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- P13. Carlson R.C.*, Papamichail I., Papageorgiou M.
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3rd NEARCTIS Workshop, EPFL, Lausanne, Switzerland, June 11, 2010.
- P14. Papamichail I.* and Papageorgiou M.
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Invited talk, TOPL Group Meeting, University of California at Berkeley, CA, USA, October 8, 2010.
- P15. Papamichail I.* and Papageorgiou M.
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- P16. Ekbatani M.K.*, Kouvelas A., Papamichail I., Papageorgiou M.
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- P17. Carlson R.C.*, Papamichail I., Papageorgiou M.
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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.
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- P20. Roncoli C.*, Papageorgiou M. and Papamichail I.
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- P21. Kouvelas A., Manolis D., Kosmatopoulos E.B., Papamichail I.* and Papageorgiou M.
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- P23. Papamichail I.
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 Invited talk, 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.
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- P25. Iordanidou G.-R., Papamichail I.*, Roncoli C. and Papageorgiou M.
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- P26. Manolis D., Michailidis I., Diakaki C.*, Papamichail I., Kosmatopoulos E. and Papageorgiou M.
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- P27. Manolis D., Papamichail I. and Papageorgiou M.*
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- P28. Typaldos P., Mountakis K.S.*, Papageorgiou M. and Papamichail I.
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 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.
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- P30. Markantonakis V.*, Skoufoulas D., Papamichail I. and Papageorgiou M.
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- 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
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- P32. Papamichail I.
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 Invited talk, 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
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- P35. Zhang S., Diamantis M., Wang Y.*, Cao J., Hu Y., Guo J., Papamichail I., Papageorgiou M., Zhang L., and Hu S.
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 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.
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- R1. Papageorgiou M., Papamichail I. and partners of the Information Society Project EURAMP (IST-2004-507645)
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 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)
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 Deliverable 3.4, Report for the IST Office, Brussels, Belgium, October 2006.
- R3. Papageorgiou M., Kosmatopoulos E., Protopappas M. and Papamichail I.
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 Internal Report 2006-25, Dynamic Systems and Simulation Laboratory, Technical University of Crete, Chania, Greece, October 2006.
- R4. Papageorgiou M. and Papamichail I.
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 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.
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 Prepared for VicRoads, Melbourne, Australia, September 2007.

- R7. Tampere C.M.J., Lentzakis A.F., Papageorgiou M. and Papamichail I.
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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.
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Report for VicRoads, Melbourne, Australia, July 2009.
- R10. Papageorgiou M., Papamichail I. and partners of the DG INFISO Project NEARCTIS (ICT-2008-224272)
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- R11. Papageorgiou M. and Papamichail I.
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Report for Rijkswaterstaat, The Netherlands, September 2009.
- R12. Papamichail I., Papageorgiou M. and partners of the DG INFISO Project NEARCTIS (ICT-2008-224272)
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- R13. Kouvelas A., Papamichail I., Papageorgiou M. and partners of the DG INFISO Project AGILE (ICT-2009-257806)
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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)
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Deliverable 3.2, Report for the ICT Office, Brussels, Belgium, September 2011.
- R15. Papamichail I., Papageorgiou M. and partners of the DG INFISO Project NEARCTIS (ICT-2008-224272)
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Deliverable 15, Report for the ICT Office, Brussels, Belgium, May 2012.
- R16. Diakaki C., Dinopoulou V., Papamichail I. and Papageorgiou M.
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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.
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Prepared for Main Roads Western Australia, Perth, Australia, March 2013.
- R18. Chrysoulakis J., Papageorgiou M., Papamichail I., Tyrinopoulos Y., Kontorinaki M., and Ponta E.
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- R19. Dinopoulou V., Diakaki C., Papamichail I. and Papageorgiou, M.
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- R20. Malandraki G., Papamichail I., Papageorgiou M. and Dinopoulou V.
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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.
- R25. Dinopoulou V., Papamichail I., Papageorgiou M. and Malandraki, G.
Multiple PTP requests methodology/software
Deliverable 4.1, Technical Report prepared for the Project "Real time public transport priority", ARCHIMEDES III, Athens, August 2014.
- R26. Michailidis, I., Korkas, C. Ravanis, C., Kosmatopoulos, E., Schild, T., Sangi, R., Aliubavicius, U., Obermaier, J., Fourati, W., Krause, M., Diakaki, C., Manolis, D., Papamichail, I., Papageorgiou, M.
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- R27. Spiliopoulou A., Papamichail I., Papageorgiou M., Tyrinopoulos Y. and Chrysoulakis J.
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- R28. Papamichail I., Iordanidou G.-R. and Papageorgiou M.
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Prepared for VicRoads, Melbourne, Australia, November 2014.
- R29. Malandraki G., Papamichail I., Papageorgiou M. and Dinopoulou, V.
Simulation and Evaluation of a PTP methodology upon multiple priority requests
Deliverable 5, Technical Report prepared for the Project "Real time public transport priority", ARCHIMEDES III, Athens, December 2014.
- R30. Spiliopoulou A., Papamichail I., Papageorgiou M., Tyrinopoulos Y. and Chrysoulakis J.
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- R31. Diakaki C., Dinopoulou V., Papamichail I. and Papageorgiou M.
Report on the Dissemination, Evaluation and Exploitation of the Public Transport Priority in Real Time Project Results (in Greek).
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- R32. Papamichail I. and Papageorgiou M.
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 Prepared for Parson Brinckerhoff, Murray, UT, USA, July 2015.
- R33. Papamichail I. and Papageorgiou M.
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 Prepared for VicRoads, Melbourne, Australia, October 2016.
- R34. Diakaki C., Manolis D., Papamichail I., Papageorgiou M., Pappa T., Fourati W., Obermaier J., Aliubavicius U., Vega Pérez J., Michailidis I., Ravanis C., Kosmatopoulos E. and García A.
Applying local signal control in Munich: Control logic and software implementation.
 Technical Report prepared under the Information and Communication Technologies Project LOCAL4GLOBAL (FP7-ICT-611538), Brussels, Belgium, December 2016.
- R35. Alonso I., Gilabert E., Diakaki C., Papamichail I., Papageorgiou M., Manolis D., Kosmatopoulos E., Ravanis C., Michailidis I., Ettinger R., Schild T., Sangi R., Beuchat P., Krause M., Fourati W. and Liu A.
Local4Global business models and update on exploitation plans (Final Version).
 Deliverable 7.5.2, Report of Project LOCAL4GLOBAL (FP7-ICT-611538) for the Information and Communication Technologies Office, Brussels, Belgium, December 2016.
- R36. Schild T., Sangi R., Fütterer J., Streblov R., Müller D., Fourati W., Liu A., Vega J., Krause M., Winzer O., Bengler K., Diakaki C., Manolis D., Papamichail I., Papageorgiou M., Michailidis I. and Kosmatopoulos E.
Results on site evaluations
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- R37. Liu A., Fourati W., Krause M., Winzer O., Bengler K., García Á., Diakaki C., Manolis D., Papamichail I. and Papageorgiou M.
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- R38. Papamichail I. and Papageorgiou M.
Exit ramp queue estimation tool - Algorithmic developments and simulation investigations
 Report for VicRoads, Melbourne, Australia, December 2017.
- R39. Papageorgiou M., Papamichail I., and partners of the EC Research Project
Requirements catalogue from the status-quo analysis
 Deliverable 2.1, Report of Project INFRAMIX (H2020-723016), Brussels, Belgium, February 2018.
- R40. Papamichail I., and partners of the EC Research Project
Architecture and interface specification of the co-simulation environment
 Deliverable 2.2, Report of Project INFRAMIX (H2020-723016), Brussels, Belgium, March 2018.

- R41. Heinrich Th., Maier F.W., Papageorgiou M., Papamichail I., Schober Ch. and Stamatakis I.
Entwicklung einer Fahrstreifenreduktionsbeeinflussungsanlage für Baustellen auf BAB.
Berichte der Bundesanstalt für Straßenwesen, Verkehrstechnik Heft V 302, Bergisch Gladbach, Germany, April 2018.
- R42. Papageorgiou M., Papamichail I., and partners of the EC Research Project
Data management plan
Deliverable 1.3, Report of Project INFRAMIX (H2020-723016), Brussels, Belgium, May 2018.
- R43. Markantonakis V., Mountakis K.S., Papageorgiou M. and Papamichail I.
Traffic state estimation and traffic control algorithms for mixed vehicle traffic
Deliverable 2.5, Report of Project INFRAMIX (H2020-723016), Brussels, Belgium, December 2018.
- R44. Papageorgiou M., Papamichail I., and partners of the EC Research Project
INFRAMIX plan for systems interaction, integration and testing
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- R45. Papamichail I., and partners of the EC Research Project
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- R46. Papamichail I. and Papageorgiou M.
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