

Dr. Ioannis Dimitriou

CONTACT INFORMATION	Assistant Professor Department of Mathematics Division of Probability, Statistics and Operations Research University of Patras University Campus Patras, 26500, Greece	<i>Tel:</i> +30 2610 996774 <i>E-mail:</i> idimit@upatras.gr, idimit@math.upatras.gr <i>WWW:</i> Personal website
GENERAL INFORMATION	Date of Birth: Place of Birth: Family Status:	13 November 1980 Athens, Greece Married
RESEARCH INTERESTS	Queueing theory, Stochastic processes, Stochastic models, Applied probability, Stochastic operations research, Performance analysis.	
ACADEMIC APPOINTMENTS	Assistant Professor Dept. of Mathematics, University of Patras, Patras, 26500, Greece. Lecturer Dept. of Mathematics, University of Patras, Patras, 26500, Greece. Marie Curie Fellow ERCIM Alain Bensoussan Fellowship Programme, co-funded by the European Commission under the FP7 Marie-Curie action named ABCDE. Hosting Institution: INRIA, Sophia-Antipolis, MAESTRO Team, France. Scientific coordinator: Dr. Philippe Nain. Postdoctoral researcher Foundation for Research and Technology-Hellas (FORTH), Institute of Computer Science, Telecommunications and Networks Laboratory – Developing the Foundations for Modeling and Analysis of Spectrum Markets (CoRLAB) General Secretariat for Research and Technology, Program “ <i>Αριστεια</i> ”, Research Excellence, Investigator-driven, 2012. – Supervisor: Professor Maria Papadopouli Postdoctoral researcher Department of Mathematics, Aristotle University of Thessaloniki • Postdoctoral scholarship awarded by the Research Committee of Aristotle University of Thessaloniki – Project title: Developing queueing models for the performance analysis of power-aware wireless systems and data centers. – Supervisor: Professor George Tsaklidis Adjunct Lecturer Department of Business Administration of Food and Agricultural Enterprises. University of Western Greece. Research Adjunct Department of Accounting, Technological Institute of Epirus, Greece. Postdoctoral Researcher	5 September 2019– 2 July 2014–4 September 2019 1 May 2014–31 July 2014 1 September 2013–21 July 2014 1 January 2013–31 December 2013 March 2013 to July 2013 February 2013 to July 2013 October 2011 to July 2012

Department of Electrical and Electronic Engineering, Imperial College, London, UK

– FP7 Project (P24736 EESD) FIT4Green, October 2011-June 2012.

– Supervisor: Professor Erol Gelenbe

Adjunct Lecturer March 2011 to August 2011

Department of Business Administration of Food and Agricultural Enterprises. University of Western Greece.

Adjunct Lecturer February 2011 to July 2011

Department of Economics University of Patras, Greece.

Research Adjunct October 2010 to July 2011

Department of Applied Foreign Languages in Management and Commerce, Technological Institute of Epirus, Greece.

Laboratorial Adjunct October 2007 to July 2009

(i) Department of Finance and Auditing and (ii) Department of Accounting, Technological Institute of Epirus, Greece.

EDUCATION

University of Ioannina, Greece

Ph.D. in Mathematics, Dept. of Mathematics, April 2009

- Thesis Topic: *New results on the theory of retrial queues*
- Adviser: Associate Professor Dr. Christos Langaris
- Area of Study: Queueing theory, stochastic processes

M.Sc in Statistics and Operations Research, Dept. of Mathematics, November 2005

- Thesis Topic: *Phase-type (PH) distributions, a survey*
- Adviser: Associate Professor Dr. Christos Langaris
- Area of Study: Applied probability

BSc in Mathematics, Dept. of Mathematics, November 2003

- Emphasis on Statistics and Operations Research.

REFEREED PUBLICATIONS

- [1] I. Dimitriou, (2020). Stationary analysis of certain Markov-modulated reflected random walks in the quarter plane. Accepted, Annals of Operations Research (Arxiv preprint).
- [2] M. Saxena, I. Dimitriou, S. Kapodistria, (2020). Analysis of the shortest relay queue policy in a cooperative random access network with collisions. Queueing Systems, 94 (1-2), pp. 39-75 .
- [3] I. Dimitriou, N. Pappas, (2019). A Random Access G-network: Stability, Stable Throughput, and Queueing Analysis. Probability in the Engineering and Informational Sciences, Accepted, May 2019, <https://doi.org/10.1017/S0269964819000251>. (Arxiv preprint).
- [4] I. Dimitriou, (2019). Stationary Analysis of a Tandem Queue with Coupled Processors Subject to Global Breakdowns. Springer Verlag Lecture Notes in Computer Science (LNCS), vol. 11688, pp. 240-259.

- [5] I. Dimitriou, (2019). On the power series approximations of a structured batch arrival two-class retrial system with weighted fair orbit queues. *Performance Evaluation*, 132, pp. 38-56, <https://doi.org/10.1016/j.peva.2019.04.001>.
- [6] I. Dimitriou, N. Pappas, (2019). Performance Analysis of a Cooperative Wireless Network with Adaptive Relays. *Ad Hoc Networks* 87, pp. 157-173.
- [7] I. Dimitriou, (2018). A two-class queueing system with constant retrial policy and general class dependent service times. *European Journal of Operational Research* 270 (3), pp. 1063-1073
- [8] I. Dimitriou, N. Pappas, (2018). Stable Throughput and Delay Analysis of a Random Access Network With Queue-Aware Transmission. *IEEE Transactions on Wireless Communications* 17 (5), pp. 3170-3184 [arXiv:1704:02902].
- [9] N. Pappas, Z. Chen, I. Dimitriou, (2018). Throughput and Delay Analysis of Wireless Caching Helper Systems with Random Availability. *IEEE Access* 6(1), pp. 9667-9678.
- [10] E. Morozov, I. Dimitriou, (2017). Stability Analysis of a Multiclass Retrial System with Coupled Orbit Queues. *Springer Verlag Lecture Notes in Computer Science (LNCS)*, vol. 10497, pp. 85-98.
- [11] I. Dimitriou, N. Pappas, (2017). Stability and Delay Analysis of an Adaptive Channel-Aware Random Access Wireless Network. *Springer Verlag Lecture Notes in Computer Science (LNCS)*, vol. 10378, pp. 63-80.
- [12] I. Dimitriou, (2017). Modeling and Analysis of a Relay-Assisted Cooperative Cognitive Network. *Springer Verlag Lecture Notes in Computer Science (LNCS)*, vol. 10378, pp. 47-62.
- [13] I. Dimitriou, (2017). Dynamic balancing in finite processor sharing queues with guard bandwidth policy, multiclass retrial users and signals. *Performance Evaluation* 114, pp. 1-15.
- [14] I. Dimitriou, (2017). A queueing system for modeling cooperative wireless networks with coupled relay nodes and synchronized packet arrivals. *Performance Evaluation* 114, pp. 16-31.
- [15] I. Dimitriou, (2017). A two class retrial system with coupled orbit queues. *Probability in the Engineering and Informational Sciences* 31 (2), pp. 139-179.
- [16] G. Fortetsanakis, I. Dimitriou, M. Papadopouli, (2017). A Game-Theoretical Analysis of Wireless Markets using Network Aggregation. *IEEE Transactions on Mobile Computing* 16(3), pp. 602-616.
- [17] I. Dimitriou, (2016). A retrial queue to model a two-relay cooperative wireless system with simultaneous packet reception. *Springer Verlag Lecture Notes in Computer Science (LNCS)*, vol. 9845, pp 123-139.

- [18] I. Dimitriou, (2016). A queueing model with two types of retrial customers and paired services. *Annals of Operations Research* 238 (1), pp. 123-143.
- [19] I. Dimitriou, (2016). Queueing analysis of the DRX power saving mechanism in fault-tolerant 3GPP LTE wireless networks. *Annals of Operations Research* 239(2), pp. 521-552
- [20] I. Dimitriou, S. Alouf, A. Jean-Marie, (2015). A Markovian queueing system for modeling a smart green base station. *Springer Verlag Lecture Notes in Computer Science (LNCS)*, vol 9272, pp. 3-18.
- [21] I. Dimitriou, (2015). Performance modeling of cellular systems with finite processor sharing queues in random environment, guard policy and flex retrial users. *Springer Verlag Lecture Notes in Computer Science (LNCS)*, vol 9081, pp. 43-58.
- [22] I. Dimitriou, (2015). A retrial queue for modelling fault-tolerant performance systems with checkpointing and rollback-recovery. *Computers & Industrial Engineering*, vol 79, pp. 156-167.
- [23] I. Dimitriou, (2014). A queueing system with probabilistic inhomogeneous vacations for modeling power-saving in wireless systems with retransmissions. In: Czachorski T., Gelenbe E., Lent R. (eds) *Information Sciences and Systems 2014*. Springer, Cham.
- [24] I. Dimitriou, (2014). A modified vacation queueing model and its application on the Discontinuous Reception power saving mechanism in unreliable Long Term Evolution networks. *Performance Evaluation*, vol 77, pp. 37-56.
- [25] I. Dimitriou, (2013). A batch arrival priority queue with recurrent repeated demands, admission control and hybrid failure recovery discipline. *Applied Mathematics and Computation*, vol 219 (24), pp 11327-11340.
- [26] I. Dimitriou. (2013). A mixed priority retrial queue with negative arrivals, unreliable server and multiple vacations. *Applied Mathematical Modelling*, vol 37(3), pp 1295-1309.
- [27] I. Dimitriou, (2013). Analysis of a priority retrial queue with dependent vacation scheme and application to energy saving in wireless communication systems. *The Computer Journal*, vol 56 (11), pp 1363-1380 (Accepted on 2012), doi:10.1093/comjnl/bxs125.
- [28] I. Dimitriou. (2013). A preemptive resume priority retrial queue with state dependent arrivals, unreliable server and negative customers. *TOP*, vol 21 (3), pp 542-571 (Accepted on 2011), doi:10.1007/s11750-011-0198-4.
- [29] C. Langaris, I. Dimitriou. (2010). A queueing system with n-phases of service and (n-1)-types of retrial customers, *European Journal of Operational Research*, vol 205, Issue 3, pp 638-649.

- [30] I. Dimitriou, C. Langaris. (2010). A repairable queueing model with two-phase service, start-up times and retrial customers, *Computers and Operations Research*, vol 37, Issue 7, pp 1181-1190.
- [31] I. Dimitriou, C. Langaris. (2009). A queueing model with start-up/close-down times and retrial customers, *Stochastic Models*, vol 25, Issue 2, pp 248-269.
- [32] I. Dimitriou, C. Langaris. (2008). Analysis of a retrial queue with two-phase service and server vacations, *Queueing Systems*, vol 60 (1-2), pp 111-129.
- SUBMITTED/IN PREPARATION [33] I. Dimitriou, Analysis of the Symmetric Join the Shortest Orbit Queue, Submitted, May 2020.
- [34] N. Pappas, I. Dimitriou, Z. Chen, On the Benefits of Network-level Cooperation in IoT Networks with Aggregators. Submitted, March 2020.
- [35] I. Dimitriou, On the Symmetric Join the Shortest Queue G-Network, Under submission, October 2019.
- [36] I. Dimitriou, On partially homogeneous nearest-neighbour random walks in the quarter plane and their application in the analysis of two-dimensional queues with limited state-dependency. ([Arxiv preprint](#)), Submitted, May 2020.
- THESES [37] I. Dimitriou. (2009). New results on the theory of queueing systems with retrial customers. Department of Mathematics, University of Ioannina, PhD Thesis.
- [38] I. Dimitriou. (2005). Phase type distributions: A survey. Department of Mathematics, University of Ioannina, MSc Thesis.
- INTERNATIONAL CONFERENCE PUBLICATIONS [39] I. Dimitriou, T. Phung-Duc (2020). Analysis of Cognitive Radio Networks with Cooperative Communication. Accepted for presentation (short paper, ACM Digital Library) VALUETOOLS 2020, May 18-20, 2020, Tsukuba, Japan.
- [40] I. Dimitriou, (2019). Stationary Analysis of a Tandem Queue with Coupled Processors Subject to Global Breakdowns. Accepted for presentation in 14th International Conference on Queueing Theory and Network Applications (QTNA 2019), Ghent, August 27-29, 2019.
- [41] I. Dimitriou, N. Pappas, (2019). A queue-based random access scheme in network-level cooperative wireless networks. Accepted for presentation in IEEE International Conference on Communications (ICC): Mobile and Wireless Networks Symposium, 20-24 May 2019, Shanghai, China (Acceptance rate 39%).
- [42] I. Dimitriou, E. Morozov, T. Morozova, (2019). A multiclass retrial system with coupled orbits and service interruptions: verification of stability conditions. In Proceedings **FRUCT24**, Moscow, Russia, 8-12 April 2019.

- [43] E. Morozov, T. Morozova, I. Dimitriou, (2018). Simulation of multiclass retrial system with coupled orbits. In **SMARTY 2018**, pp. 6–16, 21-25 September 2018, Petrozavodsk, Karelia, Russia.
- [44] N. Pappas, I. Dimitriou, Z. Chen, (2018). Network-level Cooperation in Random Access IoT Networks with Aggregators. Accepted in the 30th International Teletraffic Congress, Vienna, Austria, 4 - 7 September 2018 (Proceedings in IEEE Explore).
- [45] M. Saxena, I. Dimitriou, S. Kapodistria, (2018) Analysis of the shortest relay queue policy in a cooperative random access network. Accepted for presentation in the 3rd European Conference on Queueing Theory (ECQT 2018), Jerusalem, Israel, 2-4 July 2018.
- [46] I. Dimitriou, (2018). Performance modelling of a two-user interference-limited random access network with collisions. Accepted in Stochastic Networks Meeting, Edinburgh, UK, 25-29 June 2018.
- [47] I. Dimitriou, N. Pappas, (2018). Performance Analysis of an Adaptive Queue-Aware Random Access Scheme with Random Traffic, Accepted for presentation in IEEE ICC 2018 Wireless Networking Symposium (Acceptance rate 39.99%).
- [48] I. Dimitriou, (2018). Queueing models with state-dependent parameters: New results and applications to next generation communication networks information. Accepted for presentation in the 7th meeting of the EURO Working Group on Stochastic Modelling (StochMod 2018), Lancaster, UK, June 13-15, 2018.
- [49] I Dimitriou, K. Katsanou, (2018). Stationary analysis of an adaptive two-class retrial system under the join the shortest orbit queue policy. Accepted for presentation in the 7th meeting of the EURO Working Group on Stochastic Modelling (StochMod 2018), Lancaster, UK, June 13-15, 2018.
- [50] E. Morozov, I. Dimitriou, (2017). Stability Analysis of a Multiclass Retrial System with Coupled Orbit Queues. Accepted for presentation in the 14th European Workshop on Performance Engineering (EPEW 2017) Berlin, Germany, September 7-8 2017.
- [51] I. Dimitriou, (2017). A system with coupled processors and simultaneous arrivals. AIP Proceedings 1863, 200007 (2017), Link, (Proceedings of SAMMA 2016, ICNAAM).
- [52] I. Dimitriou, N. Pappas, (2017). Stability and Delay Analysis of an Adaptive Channel-Aware Random Access Wireless Network. Accepted in the 24rd International Conference on Analytical & Stochastic Modelling Techniques & Applications (ASMTA 2017), Newcastle, UK.
- [53] I. Dimitriou, (2017). Modeling and Analysis of a Relay-Assisted Cooperative Cognitive Network. Accepted in the 24rd International Confer-

ence on Analytical & Stochastic Modelling Techniques & Applications (ASMTA 2017), Newcastle, UK.

- [54] I. Dimitriou, (2016). A retrial queue to model a two-relay cooperative wireless system with simultaneous packet reception. Accepted in the 23rd International Conference on Analytical & Stochastic Modelling Techniques & Applications (ASMTA 2016), Cardiff, Wales, UK. 24-26 August 2016.
- [55] I. Dimitriou, (2016). Two-class retrial queues for modeling cooperative wireless networks with coupled relay nodes, Accepted for presentation in the 11th International Workshop on Retrial queues (WRQ 2016), Amsterdam, Netherlands, August 31-September 2, 2016.
- [56] I. Dimitriou, (2016). A queueing system to model cooperative wireless networks with coupled relay nodes and simultaneous packet reception. Accepted for presentation in the 2nd European Conference on Queueing Theory (ECQT 2016), Toulouse, France, 18-20 July 2016.
- [57] I. Dimitriou, (2015). A two-class retrial system with coupled orbit queues. 18th INFORMS Applied Probability Conference held on the campus of Koc University in Istanbul, Turkey. July 5th - 8th, 2015
- [58] I. Dimitriou, S. Alouf, A. Jean-Marie, (2015). A Markovian queueing system for modeling a smart green base station. Accepted for presentation in the 12th European Workshop on Performance Engineering (EPEW 2015) Madrid, Spain, 31 August and 1 September, 2015.
- [59] I. Dimitriou, (2015). Performance modeling of cellular systems with finite processor sharing queues in random environment, guard policy and flex retrial users. Accepted for presentation in 22nd International Conference on Analytical & Stochastic Modelling Techniques & Applications (ASMTA 2015), to be held in Albena, Bulgaria, 26-29 May 2015.
- [60] I. Dimitriou, (2015). On a two coupled processor system with negative customers. Accepted for presentation at the 10th International Conference on Stochastic Models of Manufacturing and Service Operations - SMMSO 2015, to be held in Volos, Greece, 1-6 June 2015.
- [61] I. Dimitriou, (2014). A retrial queue with two-types of customers and paired services. Presented at the First European Conference on Queueing Theory (ECQT 2014), Ghent, Belgium, 20-22 August 2014.
- [62] I. Dimitriou, (2014). A queueing system with probabilistic inhomogeneous vacations for modeling power-saving in wireless systems with retransmissions. Accepted for presentation at the 29th International Symposium on Computer and Information Sciences, October 27-28th, 2014, Krakow, Poland.
- [63] I. Dimitriou, (2012). Analysis of a priority retrial queue with dependent vacation scheme and application to energy saving in wireless communication systems. Presented in 9th International Workshop on Retrial Queues (WRQ), 28-30 June 2012, Pablo de Olavide University, Seville, Spain.

DOMESTIC
CONFERENCE
PUBLICATIONS

- [64] I. Dimitriou, (2012). An unreliable vacation queueing model and its application on the DRX mechanism for power saving in 3GPP LTE. In proceedings of Imperial College Energy and Performance Colloquium (ICEP 2012), Imperial College London, 29 May-1 June 2012, pp: 68-71.
- [65] I. Dimitriou, C. Langaris, (2008). A queueing system with n phases of service, vacations and retrial customers. (Abstract) Abstracts of the 7th International Workshop on Retrial Queues, Athens, Greece, pp 14.
- [66] I. Dimitriou, (2019). Stationary Analysis of an ALOHA-type Random-Access Network under the Join-the-Shortest-Queue routing policy. Greek Statistical Institute, 30 May - 1 June 2019, Ioannina, Greece.
- [67] I. Dimitriou, (2009). Stability and Queueing Analysis of Adaptive Cooperative Wireless Networks. Greek Statistical Institute, 30 May - 1 June 2019, Ioannina, Greece.
- [68] K. Katsanou, I. Dimitriou, (2018). Stationary analysis of an adaptive two-class retrial system under the join the shortest orbit queue policy. 31th Pan-Hellenic Statistical Conference, Greek Statistical Institute, May 4-6, 2016, Lamia, Greece.
- [69] I. Dimitriou, M. Markou, (2016). A queueing system in random environment with impatient customers, signals and variable batch departures. 29th Pan-Hellenic Statistical Conference, Greek Statistical Institute, May 4-7, 2016, Naousa, Greece.
- [70] I. Dimitriou, A. Kaltsas, (2016). A multiserver queueing system with asynchronous vacations for modeling energy saving in data centers. 29th Pan-Hellenic Statistical Conference, Greek Statistical Institute, May 4-7, 2016, Naousa, Greece.
- [71] I. Dimitriou, E. Zisimopoulou, (2016). A retrial queueing system with applications in the modeling of internet/TCP traffic. 29th Pan-Hellenic Statistical Conference, Greek Statistical Institute, May 4-7, 2016, Naousa, Greece.
- [72] I. Dimitriou, (2011). A state dependent unreliable retrial queue with preemptive resume priorities and negative customers. 24th Pan-Hellenic Statistical Conference, Greek Statistical Institute, April 27, May 1, 2011, Patras, Greece.
- [73] I. Dimitriou, (2009). A retrial queueing model with discretionary priorities and multiple vacations. (Abstract) Abstracts of the 22th Pan-Hellenic Conference in Statistics, Greek Statistical Institute, Chania, Crete, Greece, pp 11.
- [74] I. Dimitriou, C. Langaris, (2008). A queueing system with 3-phases of service, vacations and retrial customers. Proceedings of 21th Pan-Hellenic Conference in Statistics, Greek Statistical Institute, Karlovasi, Samos, Greece, pp: 149-156.

- [75] I. Dimitriou, C. Langaris, (2007). A queueing model with start-up/close-down times and retrial customers. Proceedings of 20th Pan-Hellenic Conference in Statistics, Greek Statistical Institute, Nicosia, Cyprus, pp: 155-162.
- [76] I. Dimitriou, C. Langaris, (2007). Analysis of a retrial queue with two-phase service and server vacations. (Abstract) Abstracts of the 19th National Conference of Operational Research Society of Greece, Arta, Greece, pp 42.

OTHER
PUBLICATIONS

- [77] I. Dimitriou. (2009). A gated type multiclass retrial queue with structured batch arrivals, priorities and vacations. Technical Report, Department of Mathematics, University of Ioannina, Number 20, Volume June-December 2009, pp 1-13.
- [78] I. Dimitriou. (2012). A multiserver queue with vacations and timers in Markovian environment for managing energy consumption in data centers. Imperial College, Technical report, May 2012.

EDITED
CONFERENCE
PROCEEDINGS

- [79] Phung-Duc, T. and Dimitriou, I., Eds., Proceedings of Symposium on Stochastic Models: Methods and Applications (SAMMA 2016 within the ICNAAM 2016, Rhodes, Greece, 19-25 September 2016.), AIP Conference Proceedings, Vol. 1863, 200001, 2017. [DOI: 10.1063/1.4992372]
- [80] Phung-Duc, T. and Dimitriou, I. and Vatamidou, E. Eds., Proceedings of Symposium on Stochastic Models: Methods and Applications (SAMMA 2017 within the ICNAAM 2017, 25-30 September 2017, Thessaloniki, Greece.), AIP Conference Proceedings 1978(1):190001. [DOI: 10.1063/1.5043828]

GRANTS

1. Travel grant, 7th meeting of the EURO Working Group on Stochastic Modelling (StochMod 2018), Lancaster, UK, June 13-15, 2018.
2. Marie Curie Fellow, ERCIM Alain Bensoussan Fellowship Programme, co-funded by the European Commission under the FP7 Marie-Curie action named ABCDE (1 year contract, 1 May 2014-31 April 2015).
 - Hosting Institution: INRIA, Sophia-Antipolis, MAESTRO Team, France, 2014-2015.
 - Supervisor: Dr. Philippe Nain.
3. Post Doctoral fellowship “Research Excellence”, 1/1/2013-31/12/2013, Aristotle University of Thessalonica Research Committee
 - Hosting Department: Department of Mathematics
 - Supervisor: Professor George Tsaklidis.
 - Visiting grant (1 month) by FWO (Belgium) to visit Dept. of Telecommunications and Information Processing, Ghent University, Belgium, May 2020. Host: D. Fiems, Y. Walraevens.

SCHOLARSHIPS

1. Supported from State Scholarships Foundation of Greece (IKY) for MSc Degree at Mathematics Department, University of Ioannina, Greece (2004-2005).
2. Supported from State Scholarships Foundation of Greece (IKY) for PhD Degree at Mathematics Department, University of Ioannina, Greece (2006-2008).

CITATIONS

See Google Scholar: 379, h-index: 14, i10-index: 12.

TEACHING EXPERIENCE

Department of Mathematics, University of Patras, Greece,

Assistant Professor

September 2019–

- [Data-driven Probabilistic Models in Decision Making Process](#) (MSc program on Computational Data Science and Statistical Analytics (MCDA), Spring, lectures 3 hours per week). Dept. of Mathematics, University of Patras, Greece.
- [Introduction to Stochastic Processes](#) (Undergraduate course, Fall, lectures 4 hours per week).
- [Stochastic Models in Operations Research](#) (Undergraduate course, Spring, lectures 4 hours per week).
- [Probability I](#) (Undergraduate course, Fall, lectures 5 hours per week).

Lecturer

September 2018–September 2019

- [Data-driven Probabilistic Models in Decision Making Process](#) (MSc program on Computational Data Science and Statistical Analytics (MCDA), Spring, lectures 3 hours per week). Dept. of Mathematics, University of Patras, Greece.

September 2014–September 2019

- [Stochastic Processes](#) (MSc program on "Computer and Decision Mathematics", co-organized with Computer Engineering & Informatics Department).
- [Operations Research](#) (MSc program on "Computer and Decision Mathematics", co-organized with Computer Engineering & Informatics Department).
- [Introduction to Stochastic Processes](#) (Undergraduate course, Fall, lectures 4 hours per week).
- [Mathematics I](#) (Undergraduate course, Fall 2014, lectures 4 hours per week, Dept. of Geology, University of Patras, Greece).
- [Probability and Stochastic processes](#) (Undergraduate course, Spring, lectures 4 hours per week, Dept. of Materials Science, University of Patras, Greece).
- [Introduction to queueing systems](#) (Undergraduate course, Fall, lectures 4 hours per week).

September 2014–September 2018

- Queueing Theory (MSc program on "Computer and Decision Mathematics", co-organized with Computer Engineering & Informatics Department).

Department of Business Administration of Food and Agricultural Enterprises, University of Western Greece,

Adjunct Lecturer **March 2013 to July 2013**

- Operations Research (lectures 3 hours per week).

Department of Accounting, Technological Institute of Epirus, Greece,

Research Adjunct **February 2013 to July 2013**

- Business Statistics (lectures 8 hours per week).

Department of Finance and Auditing, Technological Institute of Epirus, Greece,

Laboratorial Adjunct **October 2012 to January 2013**

- Business Statistics (lectures 4 hours per week).

Department of Economics, University of Patras, Greece,

Adjunct Lecturer **February 2011 to July 2011**

- Operations Research-Applications (lectures 3 hours per week).

Department of Business Administration of Food and Agricultural Enterprises, University of Western Greece,

Adjunct Lecturer **March 2011 to August 2011**

- Operations Research (lectures 3 hours per week).
- Financial Mathematics (lectures 5 hours per week).

Department of Applied Foreign Languages in Management and Commerce, Technological Institute of Epirus, Greece,

Research Adjunct **October 2010 to July 2011**

- Operations Research (lectures 4 hours per week).
- Business Statistics (lectures 3 hours per week plus laboratorial work 4 hours per week).

Department of Finance and Auditing and Department of Accounting, Technological Institute of Epirus, Greece,

Laboratorial Adjunct **October 2007 to July 2009**

- Mathematics for Economists (lectures 5 hours per week).
- Operations Research (lectures 4 hours per week).
- Business Statistics (lectures 4 hours per week).

STUDENTS

Completed MSc Theses

- E. Zisimopoulou, (2016). Retrial queueing systems: a review and an application. (MSc Thesis, in Greek, Nemertes DSpace).
- M. Markou, (2016). On queueing models with impatient customers in random environment: an overview and an application. (MSc Thesis, in Greek, Nemertes DSpace).
- A. Kaltsas, (2016). Vacation queueing models with applications in energy saving. (MSc Thesis, in Greek, Nemertes DSpace).
- K. Katsanou, (2018). Performance analysis of a cooperative wireless network. (MSc Thesis, in Greek, Nemertes DSpace).

Completed BSc Theses

- I. Ktorides, (2017). Markovian queueing models with applications to relay-assisted networks.
- D. Kintos, (2017). Birth-death queueing systems and the method of phases.
- G. Vasilakopoulos, (2018). Game theoretical aspects of queueing theory (completed June 2018).

Ongoing BSc Theses

- C. Papachristou, (2020). Brownian motion and the Black-Scholes formula (expected June 2020).

REFEREE SERVICE

- *Computers and Operations Research*
- *Journal of Systems Science and Systems Engineering*
- *Central European Journal of Operational Research*
- *Applied Mathematical Modelling*
- *Operational Research (OPSEARCH)*
- *Queueing Systems*
- *Asia Pacific Journal of Operational Research*
- *Mathematical and Computer Modelling*
- *International Journal of Computer Mathematics*
- *Quality Technology and Quantitative Management*
- *Annals of Operations Research*
- *KSII Transactions on Internet and Information Systems*
- *Performance Evaluation*
- *Applied Mathematics and Computation*
- *European Journal of Operational Research*
- *Computers and Industrial Engineering*
- *Computer Networks*
- *RAIRO - Operations Research*
- *ACM Transactions on Modeling and Performance Evaluation of Computing Systems*
- *Methodology and Computing in Applied Probability*
- *IEEE Transactions on Communications*
- *IEEE Transactions on Wireless Communications*
- *IEEE Communication Letters*
- *IEEE Transactions on Communications*
- *IEEE Transactions on Mobile Computing*
- *IEEE Access*

- *IEEE Systems Journal*
- *Journal of Operations Research Society (JORS)*
- *Annals of Telecommunications*
- *SIAM Journal on Applied Mathematics*
- *International Journal of Computer Mathematics: Computer Systems Theory*
- *International Journal of Applied Mathematics and Computer Science (AMCS)*
- *Journal of Industrial and Management Optimization*
- *AMS Mathematical Reviews*
- *International Journal of Electronics*

CONTRIBUTION
TO
INTERNATIONAL
CONFERENCES

- Program Committee Member for the 23rd International Conference on Analytical & Stochastic Modelling Techniques & Applications (ASMTA 2016), Cardiff, UK.
- Program Committee Member for the 24rd International Conference on Analytical & Stochastic Modelling Techniques & Applications (ASMTA 2017), Newcastle, UK.
- Co-Organizer of the 1st Symposium on Stochastic Models: Methods and Applications (SAMMA 2016), 14th International Conference of Numerical Analysis and Applied Mathematics, 19-25 September 2016, Rodos Palace Hotel, Rhodes, Greece (with with Dr. Tuan Phung-Duc (Tokyo Institute of Technology, Tokyo, Japan)).
- Co-Organizer of the 2nd Symposium on Stochastic Models: Methods and Applications (SAMMA 2017), 15th International Conference of Numerical Analysis and Applied Mathematics, 25-30 September 2017, The MET Hotel, Thessaloniki, Greece (with with Dr. Tuan Phung-Duc (Tokyo Institute of Technology, Tokyo, Japan), and Dr. Eleni Vatamidou University of Lausanne, Switzerland)).
- Sub-reviewer for the 13th International Conference on Queueing Theory and Network Applications (QTNA 2018), Tsukuba City, Japan, July 25-27, 2018.
- Program Committee Member for the European Simulation and Modelling conference (ESM 2018) to be held in Ghent, Belgium, October 2018.
- Program Committee Member for the 14th International Conference on Queueing Theory and Network Applications (QTNA 2019), Ghent, Belgium, August 27-29, 2019.
- Program Committee Member for the 24rd International Conference on Analytical & Stochastic Modelling Techniques & Applications (ASMTA 2019), Moscow, Russia, October 21-25, 2019.
- Program Committee Member for the 16th European Performance Engineering Workshop (EPEW 2019), Milan, Italy, November 28-29 2019.
- Program Committee Member for the 10th International Workshop on Applied Probability (IWAP 2020), Thessaloniki, Greece, June, 15-18 2020.
- Program Committee Member for the 2nd International Workshop on Stochastic Modeling and Applied Research of Technology (SMARTY 2020), Petrozavodsk, Karelia, Russia, August 16-20, 2020.

PROFESSIONAL
EXPERIENCE

Referee for Research Proposals

- Research Foundation – Flanders (FWO), Belgium (2017, 2018).
- Hellenic Foundation for Research and Innovation (HFRI), Greece (2017, Research Projects for Postdoctoral Researchers).

Marie Curie Fellow **1 May 2014-31 July 2014**

ERCIM Alain Bensoussan Fellowship Programme, co-funded by the European Commission under the FP7 Marie-Curie action named ABCDE.

Hosting Institution: INRIA, Sophia-Antipolis, MAESTRO Team, France.

Scientific coordinator: Dr. Philippe Nain.

Postdoctoral researcher **1 September 2013-21 July 2014**

Foundation for Research and Technology-Hellas (FORTH), Institute of Computer Science, Telecommunications and Networks Laboratory

- Developing the Foundations for Modeling and Analysis of Spectrum Markets (CoRLAB) General Secretariat for Research and Technology, Program “*Αριστεία*”, Research Excellence, Investigator-driven, 2012.

- Supervisor: Associate Professor Maria Papadopoulou

Postdoctoral Researcher **October 2011 to July 2012**

Imperial College, London, UK

- Funding: FP7 Project (P24736 EESD) FIT4Green, October 2011-June 2012, Department of Electrical and Electronic Engineering, ISN Group, Imperial College, London, UK.
 - Supervisor (PI): Professor Erol Gelenbe
- Performance and stochastic modelling for power saving in large data centers

PROFESSIONAL MEMBERSHIPS

- EURO Working Group on Stochastic Modeling
- Professional member (no 6271326) of the Association for Computing Machinery (ACM), 2018.

SKILLS PROFILE

Languages:

- Greek (native), English (First Certificate in English, University of Cambridge).

Computer skills:

- MS Office, Latex, Mathematica, SPSS, LINDO, MATLAB.

ACADEMIC INVITATIONS

- Inria, MAESTRO Group, Sophia-Antipolis, France. September 4-9, 2016. Host: K. Avrachenkov.
- TU/e, Stochastics Group, Eindhoven, Netherlands. May 28-June 11, 2017. Host: S. Kapodistria, O. Boxma.
- Dept. of Mathematics, Aristotle University of Thessaloniki, Greece. November 27-28, 2019. Host: G. Tsaklidis, A. Papadopoulou.
- Dept. of Telecommunications and Information Processing, Ghent University, Belgium, May 2020. Host: D. Fiems, Y. Walraevens.

TALKS

- I. Dimitriou. (2011). Mixed priority retrial queues with negative arrivals. Department of Mathematics, University of Ioannina, Greece,

- I. Dimitriou. (2012). Applied probability applications. Department of Mathematical Sciences. University of Essex, 20 March 2012.
- I. Dimitriou. (2013). Performance Analysis of the Discontinuous Reception (DRX) power saving method in 3GPP LTE: A queueing perspective. FORTH-Institute of Computer Science, Herakleion-Greece, 24 January 2013.
- I. Dimitriou. (2013). Multiclass retrial queues with preemptive priorities. Invited talk in the 7th Young European Queueing Theorists (YEQT IIV) workshop held in EURANDOM/TU Eindhoven in November 4-5-6, 2013.
- I. Dimitriou. (2016). Two-class retrial queues for modeling cooperative wireless networks with coupled relay nodes. MAESTRO group, INRIA, 7 September 2016.
- I. Dimitriou. (2019). Interacting queues in the modelling of modern telecommunication systems. Dept. of Mathematics, Aristotle University of Thessaloniki, Greece. November 27-28, 2019.

REFERENCES
AVAILABLE TO
CONTACT

Dr. Erol Gelenbe (e-mail: e.gelenbe@imperial.ac.uk)

- Professor, Electrical and Electronic Engineering, Imperial College, London, UK
- ◇ South Kensington Campus, London SW6 2BT, UK
- ★ *Professor Gelenbe was PI on the EU grant that funded my postdoctoral position.*

Dr. Nikolaos Pappas (e-mail: nikolaos.pappas@liu.se)

- Associate Professor, Linköping University, Department of Science and Technology, Mobile Telecommunications Group, Campus Norrköping, SE-601 74, SWEDEN

Dr. Christos Langaris (e-mail: clagar@cc.uoi.gr)

- Associate Professor, Department of Mathematics
University of Ioannina, Greece
- ◇ University of Ioannina Campus, Ioannina, 45110, Greece
- ★ *Dr. Langaris was my supervisor during my postgraduate studies.*

Dr. George Tsaklidis (e-mail: tsaklidi@math.auth.gr)

- Associate Professor, Department of Mathematics
Aristotle University of Thessaloniki, Greece
- ◇ 54124, Thessalonica, Greece
- ★ *Professor Tsaklidis was my supervisor during my postdoc in Mathematics Department of A.U.TH..*

Dr. Philippe Nain (e-mail: philippe.nain@inria.fr)

- Principal researcher, Inria Research Centre: Grenoble - Rhone-Alpes
- ◇ Ecole Normale Supérieure de Lyon, LIP, 46 allée d'Italie, 69364 Lyon Cedex 07, France
- ★ *Dr. Nain was my supervisor during my postdoc at INRIA, Sophia Antipolis, France.*

Dr. Alain Jean-Marie (e-mail: AlainJean-Marie@inria.fr)

- Principal researcher, Inria Research Centre: Sophia-Antipolis

- ◇ LIRMM, UMR CNRS/Universite de Montpellier (anciennement: Montpellier 2), Département d'Informatique, France
- ★ *Dr. Jean-Marie was my supervisor during my postdoc at INRIA, Sophia Antipolis, France.*

MORE
INFORMATION

More information and auxiliary documents can be found at
[Google Scholar](#)
[ResearchGate](#)
[Academia](#)
[Linkedin](#)