

## Jocelyne ELIAS

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### CURRENT POSITION

- ❑ **Since September 2015, I am member of INRIA, DYOGENE (“en delegation à l’INRIA Paris”)**
- ❑ Since September 2010, I am **Associate Professor (Maître de Conférences)** at Paris Descartes University.
- ❑ Member of the Multimedia Networking and Security research group of LIPADE laboratory, and Computer Science department of the University Institute of Technology (IUT), Paris Descartes.
- ❑ **Lecturer** in “Fundamentals of Telecommunications Networks”, “Computer Networks and Operating Systems”, “Network optimization” and “Application of Game Theory to Telecommunications Networks”, graduate and undergraduate courses, IUT and Paris Descartes University.
- ❑ Currently, I am working on:
  - Internet of (Medical) Things, wearable devices, Wireless Body and Cognitive Radio Networks.
  - Network Optimization and Application of Game Theory to Networks (resource allocation, interference mitigation, spectrum access/sharing, network design/formation, routing and pricing).

### REFEREES

- Prof. **Ian F. Akyildiz** (ACM/IEEE Fellow), Broadband Wireless Networking Lab, Georgia Institute of Technology, USA. E-mail: [ian@ece.gatech.edu](mailto:ian@ece.gatech.edu)
- Prof. **Marwan Krunz** (IEEE Fellow), University of Arizona, USA. E-mail: [krunz@email.arizona.edu](mailto:krunz@email.arizona.edu)
- Dr. **Eitan Altman** (IEEE Fellow), INRIA Sophia-Antipolis Méditerranée, France. E-mail: [Eitan.Altman@inria.fr](mailto:Eitan.Altman@inria.fr)
- Prof. **Antonio Capone**, Politecnico di Milano, Milan, Italie. E-mail: [capone@elet.polimi.it](mailto:capone@elet.polimi.it)

### SUMMARY

- ❑ **Publications:** 45 (17 Journal papers, 29 conference papers and 2 INRIA reports)
- ❑ **Citations:** 401, h-index: 11, g-index: 18
- ❑ **Student’s supervision:** 4 Ph.D. students, 3 students in Master 2nd year and several in Master 1st year.
- ❑ **Main publications:** 2 IEEE TVT, 6 ComNet (1 with 41 citations), 2 Ad Hoc, ICC 2012 (58 citations).
- ❑ **Organization of conferences:** WiOpt 2017, NetGCooP 2011, CNSM 2011, DNAC 2004, Journée du LIPADE 2012.
- ❑ **Industrial contacts:** Orange, Alcatel-Lucent - Nokia, CEA, EELEO (to set up ANR projects on green networks and medical applications) and Huawei Technologies (to set up a project on Cloud-Radio Access Networks, ranked in the first three among the finalists).

### EDUCATION

- ❑ **European Ph.D. Degree** in Information Technology, obtained *cum laude* in March 2010 at the Department of Electronics and Information, Polytechnic of Milan, Italy. Ph.D. thesis title: Overlay Network Formation: Models and Algorithms. Advisor: Prof. Antonio Capone.
- ❑ **Ph.D. Degree (Doctorat de l’Université Paris 6)** in Information Technology, Telecommunications and Electronics, obtained cum laude in July 2006 at LIP6, Pierre et Marie Curie University (UPMC), Paris, France. “Mention: Très Honorable”. Ph.D. thesis title: Dynamic Bandwidth Allocation in Quality of Service Networks. Advisor: Prof. Guy Pujolle.
- ❑ **Master’s Degree (DEA, Diplôme d’Études Approfondies)** in Advanced Networks of Knowledge and Organization - Future Intelligent Communication Networks, University of Technology of Troyes, Troyes, France, 2003. “Mention: Très Bien” (*Very Good*).
- ❑ **Master degree** in Computer Science and Telecommunications Engineering, Lebanese University, Faculty of Engineering (ULFG 1), Tripoli, Lebanon, July 2002.

## PRIZES AND GRANTS

- ❑ *Scientific Excellence Prize (Prime d'Excellence Scientifique, PES), for the period of October 2013-2017.*
- ❑ I won the **Best Paper Award** prize at the PhDay 2008 conference (June 2008), organized by the Department of Electronics and Information (DEI) of Politecnico di Milano, Milan, Italy, for the paper entitled "Topology Design and Capacity Dimensioning of Service Overlay Networks".
- ❑ The paper "A Nash bargaining solution for Cooperative Network Formation Games", IFIP Networking 2011, was ranked in the **first 3** (ratio 1%) best papers among 64/294 (acceptance rate 21.8%).
- ❑ The paper "A Competitive Interference-aware Spectrum Access in Cognitive Radio Networks", WiOpt 2010, was ranked in the **first 6** (ratio 5.4%) best papers among 37/112 (acceptance rate 33.0%).
- ❑ I was awarded a Student Travel Grant for the IEEE INFOCOM 2010 Conference (acceptance rate 23%).
- ❑ I was awarded a Travel Grant for the WiOpt conference, 2010.

## RESEARCH GRANTS

- ❑ **Three-year grant** from the **Italian Ministry of Education and University** to accomplish my European Ph.D. studies in Information Technology at the Department of Electronics and Information, Politecnico di Milano, Italy, January 2007- December 2009.
- ❑ **Doctoral Scholarship from CNRS-Lebanon** (National Council for Scientific Research in Lebanon) to accomplish my Ph.D. studies at LIP6, Paris, France, 2004-2006.

## SUPERVISION OF PH.D. AND MASTER STUDENTS

I supervised the research activities of several students at the Master level, and I am currently supervising four Ph.D. students. I summarize in the two following tables my responsibilities in terms of students' supervision.

Ph.D. student	Subject	Date	Publications
Mira Morcos	Resource Allocation in Virtualized Radio Access Networks	Since 1 November 2015	1 under revision
Javier Salazar	Cloud computing: Optimization models and algorithms	since 01/10/2012 (Defense: October 27, 2016)	3 published articles 1 under revision
Amira Meharouech	Wireless Body-to-Body Networks: Optimization Models and Algorithms	since 01/10/2012 (Defense: December 16, 2016)	5 published articles 1 under revision
Hadda Ben Elhadj	Multi Attribute Decision Making Handover Algorithm for Wireless Body Area Networks	Visiting period: 01/05/2013 – 31/07/2013 (Defense: April 2 <sup>nd</sup> , 2016)	2 published journal papers

Master Student	Subject	Level	Year
CHAHOUH Ghassane EL MEHDI Safouh	A study of access (MAC) protocols and coupling with a routing algorithm to improve the performance of WBANs	Research project 1 <sup>st</sup> year of Master	2014/2015
OULLEMINE Mohammed ACHRAF Rafi	Utilization of CPLEX Optimization Studio using two case studies: optimization of wireless networks and wireless sensor networks	Research project 1 <sup>st</sup> year of Master	2013/2014
ALLADA Henry SAYIN Fatih	Bibliographical and comparative study between TelosB, MicaZ and Shimmer wireless modules	Research project 1 <sup>st</sup> year of Master	2012/2013
SALAZAR Javier	Optimal Design of Energy-efficient and Cost-effective Wireless Body Area Networks (WBANs)	Research training Master 2	2011/2012

BELLAHESEN Gamliel ABITBOL David	Performance evaluation of WBAN design approaches	Research project 1 <sup>st</sup> year of Master	2011/2012
AIT HAMMOUD Mohand Amokrane HABIB Hanane	Optimal design of WBANs	Research project 1 <sup>st</sup> year of Master	2011/2012
JABEUR Jaafar GUECHETOULI Madjid	Green Network Design: A game theoretical approach	Research project 1 <sup>st</sup> year of Master	2011/2012
RANDRIANARISAINA Andriamampianina Aina	Optimal design of WBAN for improving the network lifetime	Research training Master 2	2010/2011
CALDARA Guido	Green networks optimization	Research training Master 2	2010/2011
MBAYE Elhadji TCHASSOVSKIKH Pavel	Green networks optimization	Research project 1 <sup>st</sup> year of Master	2010/2011
BEN HAMOUDA Bassem BEN KRAIEM Wassef	A game theoretical design of green networks	Research project 1 <sup>st</sup> year of Master	2010/2011

## PREVIOUS POSITION

- **Post-Doctorate** researcher at the Department of Information Technology and Mathematical Methods, University of Bergamo, Italy, January-August, 2010.

## TALKS AND SEMINARS

During the last years, I have been invited to hold seminars on my research topics at the following Universities and Research groups:

- Seminar, **“Stochastic Optimization Models for Virtual Content Delivery Network Planning”**, ROADEF 2016, Compiègne, France, February 10-12, 2016.
- Invited seminar, **“Modeling and Performance Evaluation of Resource Allocation Problems in TV White Space and NFV-based Networks”**, LINCS, Paris, 14 October 2015.
- Invited seminar, **“Modeling and Performance Evaluation of Wireless Networks”**, INRIA – DYOGENE, Paris, 13 Mars 2015.
- Invited seminar, **“Optimal design of energy-efficient and cost-effective Wireless Body Area Networks”**, national meeting of GDR SoC-SiP (System On Chip – System In Package), Paris, June 2014.
- Invited seminar, **“Computer Networks: Optimization, Resource Management, Routing and Pricing”**, LIA Laboratory, University of Avignon, May 23, 2014.
- Seminar, **“Cross Technology Interference Mitigation in Body-to-Body Area Networks”**, IEEE WoWMoM 2013, Madrid, Spain, June 2013.
- Seminar, **“Energy-aware Topology Design for Wireless Body Area Networks”**, IEEE ICC 2012, Ottawa, Canada, June 2012.
- Seminar, **“Optimal Design of Wireless Body Area Networks”**, Journée du LIPADE, Paris, June 16, 2011.
- Seminar **“Competitive Interference-aware Spectrum Access in Cognitive Radio Networks”**, 7th EuroNF Workshop on Wireless and Mobility in the Network of the Future, Villa Vigoni, Como, Italy, June 21, 2010.
- Seminar **“Competitive Interference-aware Spectrum Access in Cognitive Radio Networks”**, WiOpt 2010, Avignon, France, May 31- June 4, 2010.
- Seminar, **“Network Optimization and Resource Management: Models and Algorithms”**, LIPADE, Paris, April 21, 2010.
- Seminar, **“Socially-Aware Network Design Games”**, IEEE Infocom 2010, San Diego, CA, USA, March 2010.
- Seminar, **“Overlay Networks Formation: Models and Algorithms”**, Dipartimento di Elettronica e Informazione (DEI), Politecnico di Milano, Italy, March 2010.

- ❑ Seminar, “**A Game Theoretic Framework for joint Routing and Pricing in Networks with Elastic Demands**”, Valuetools’09 Conference, Pisa, Italy, October 2009.
- ❑ Seminar, “**Joint routing and pricing in communications networks with elastic traffic: a game theoretical perspective**”, INRIA-Sophia Antipolis MAESTRO Retreat, Avignon, France, September 2009.
- ❑ Seminar “**Very Large-Scale Neighborhood Search Algorithms for the Design of Service Overlay Networks**”, Italian Networking Workshop, Cortina d’Ampezzo, Italy, January 2009.
- ❑ Seminar “**Optimal Design of Service Overlay Networks**”, INRIA Sophia Antipolis – Méditerranée, France, October 2008.
- ❑ Seminar “**Neighborhood based heuristics for the Hub Location Problem**”, Dipartimento di Elettronica e Informazione (DEI), Politecnico di Milano, Italy, September 2008.
- ❑ Seminar “**Topology Design and Capacity Dimensioning of Service Overlay Networks**”, PhDay 2008 conference, DEI, Politecnico di Milano, Italy, June 2008.
- ❑ Seminar “**Dynamic Bandwidth Allocation in Communication Networks**”, Italian Networking Workshop, Bardonecchia, Italy, January 2007.
- ❑ Seminar “**Dynamic Resource Allocation in Communication Networks**”, Networking 2006, Coimbra, Portugal, May 2006.
- ❑ Seminar “**Distributed Dynamic Bandwidth Provisioning in Quality of Service Networks**”, 3<sup>rd</sup> EuroNGI Workshop on QoS and Traffic Control, Ecole Normale Supérieure (ENS), Paris, France, December 2005.
- ❑ Seminar “**Dynamic Resource Allocation in Quality of Service Networks**”, Second EuroNGI Workshop on New Trends in Network Architectures and Services, Villa Vigoni, Como, Italy, July 2005.

#### **PARTICIPATION TO NATIONAL AND INTERNATIONAL RESEARCH PROJECTS**

- ❑ **February-August 2010**: Participation to the **PrimeLife project** (Privacy and Identity Management in Europe for Life), funded by the **European Commission’s 7th Framework Programme**, as a Post-doc at the University of Bergamo. Within this project I have studied distributed and complex systems using the Game Theory paradigm. Research unit: University of Bergamo. Project coordinator: Prof. Stefano Paraboschi.
- ❑ **September 2008-September 2010**: Participation to the **PRIN 2007 SESAME project** (Scalable Efficient Secure Autonomic MESH networks), funded by the **Italian Ministry of Education and University**, for which I have studied and implemented novel algorithms and protocols for Wireless Mesh Networks. Research unit: Politecnico di Milano. Project coordinator: Prof. Antonio Capone.
- ❑ **2007-2009**: Participation to the **Network of Excellence EURO-NF: Anticipating the Network of the Future – From Theory to Design**. Within this project, I have investigated the applications of game theory to networks in general and overlay networks in particular, and I have spent 7 months as visiting researcher at the MAESTRO team, INRIA-Sophia Antipolis, France, in 2008-2009.

#### **ACTIVE COLLABORATIONS WITH INTERNATIONAL RESEARCH GROUPS AND RESEARCHERS**

- ❑ **Advanced Network Technologies Laboratory (ANTLab)**, Department of Electronics and Information, **Politecnico di Milano**. I have worked with Professors Antonio Capone and Luigi Fratta on the problem of dynamic bandwidth allocation in QoS networks. We have proposed a new service model and a broad set of efficient dynamic bandwidth allocation algorithms that take explicitly into account traffic statistics measured on-line and users’ utility functions to increase users’ benefit and network revenue. During my PhD studies at LIP6 laboratory, I have spent several months at ANTLab, during May-July 2005, January-April 2006 and July-December 2006.  
*References: Prof. Antonio Capone and Prof. Luigi Fratta, Politecnico di Milano, 32, Piazza Leonardo da Vinci, 20133, Milano, Italy.*
- ❑ Research team **MAESTRO, INRIA Sophia Antipolis – Méditerranée**. I am currently collaborating with the members of the MAESTRO team on several issues related to game theory applications to computer networks. I have spent several months at the **MAESTRO** team (director, Dr. Philippe Nain): December 2013, from October 15, 2008 to January 15, 2009 and from July 1, 2009 to October 25, 2009.

*References: Dr. Philippe Nain and Dr. Konstantin Avrachenkov, INRIA Sophia Antipolis, 2004 Route des Lucioles - B.P. 93 FR - 06902 Sophia Antipolis Cedex, France.*

- **LIA (Laboratoire Informatique d'Avignon), Université d'Avignon et des Pays de Vaucluse.** I am cooperating with Dr. Altman and other members of LIA on several research topics related to Game Theory: selfish routing in telecommunications networks, dynamic spectrum access in Cognitive Radio Networks, and economic interactions between (Internet) Service Providers and users. I have been invited by Dr. Eitan Altman at the LIA from October 26 to November 15, 2009.  
*Reference: Dr. Eitan Altman, INRIA Sophia Antipolis, 2004 Route des Lucioles - B.P. 93 FR - 06902 Sophia Antipolis Cedex, France.*
- **LIP6 Laboratory, University of Pierre et Marie Curie.** Since 2003, I have collaborated with the LIP6 networking research team on issues related to dynamic resource allocation in Quality of Service networks.
- **Operations Research and Discrete Optimization Group, Politecnico di Milano (Italy).** I have worked with the Network Optimization (NeO) laboratory in Politecnico di Milano on extending the Hub Location problem to the overlay network design problem.
- **Department of Information Technology and Mathematical Methods, University of Bergamo:** a fruitful collaboration exists with the Department of Information Technology and Mathematical Methods (DIIMM), since 2005, on several research issues like network design and dynamic bandwidth allocation in telecommunications networks. I have been Visiting Researcher at DIIMM in 2005-2006.  
*Reference: Prof. Stefano Paraboschi, University of Bergamo, Dalmine (BG) 24044, Italy.*
- **IMAGINE (Intelligence for Mobile Autonomic and Cognitive Networks) Laboratory, School of Information Technology and Engineering (SITE), University of Ottawa.** Since January 2012, I am collaborating with Prof. Ahmed Karmouch on two main research issues: efficient resource allocation in the Mobile/Edge Cloud, and reliable and energy-efficient design of wireless body area networks.  
*Reference: Prof. Ahmed Karmouch, University of Ottawa, School of Electrical Engineering and Computer Science (EECS), University of Ottawa, 800 King Edward Avenue, Ottawa, Ontario, Canada.*

These fruitful collaborations have led to publications in prestigious journals and conferences, with the following co-authors:

- **Eitan Altman**, Research Director, INRIA, Sophia-Antipolis.
- **Marwan Krunz**, Professor, University of Arizona.
- **Antonio Capone**, Professor at DEI, Polytechnic of Milan, Italy.
- **Jianping Wang**, Associate Professor, City University of Hong Kong.
- **Leon Petrosyan**, Professor and Director of the Game Theory Center, Saint Petersburg State University, Russia.
- **Fabio Martignon**, Professor, Paris-Sud University.
- **Konstantin Avrachenkov**, Director of Research, INRIA, Sophia-Antipolis.
- **Lin Chen**, Associate Professor, Paris-Sud University.
- **Giuliana Carello**, Associate Professor, Operations Research and Discrete Optimization Group, DEI, Polytechnic of Milan, Italy.
- **Giovanni Neglia**, Research Scientist, INRIA, Sophia-Antipolis.
- **Ahmed Karmouch**, Professor, University of Ottawa.

## **EXPERIENCE IN REVIEW AND CONFERENCE ORGANIZATION**

- I have been *reviewer* for international networking journals and conferences such as IEEE Transactions on Wireless Communications, IEEE Journal on Selected Areas in Communications, IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Vehicular Technology, IEEE Transactions on Information Technology in Biomedicine, Elsevier Computer Networks, Elsevier Ad Hoc Networks, Elsevier Computer Communications, Wiley Wireless Communications and Mobile Computing, International Journal

of Ad Hoc and Ubiquitous Computing (IJAHUC), International Journal of Sensor Networks (IJSNET), IEEE GLOBECOM, IEEE ICC, IEEE-IFIP Net-Con, IFIP Wireless Days, NetGCooP, International Conference on Computer and Network Technology (ICCNT), IEEE International Workshop on CAMAD, Next Generation Internet (NGI).

- I have participated to the *organization* of several conferences and events:
  - **WiOpt 2017** (15th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks), Paris, France, 15th - 19th May, 2017.
    - *Publication Chair*,
  - **NetGCooP 2011** (International Conference on NETwork Games, COntrol and Optimization, <http://netgcoop.imag.fr/>), Paris Descartes University, October 12-14, 2011 (100 participants).
    - *Organizing Committee Co-Chair*,
    - *Chairman for the Green Networking* session of NetGCooP 2011, October 12, 2011.
  - **CNSM 2011** (Conference on Network and Service Management, <http://cnsm.loria.fr/>), 12 rue de l'Ecole de Médecine, Paris Descartes University, October 24-28, 2011.
  - **Congrès DNAC 2004** – PARIS'04-“Contrôle, Maitrise et Autonomie des Réseaux – Qualité de Service, Sécurité, Mobilité”, Paris, France, November 29-December 1, 2004.
  - **Journée du LIPADE 2012**, 45, rue des Saints Pères, Paris, 21 June 2012, available at <http://lipade.math-info.univ-paris5.fr/journeeslipade2012/>.

#### OTHER SCIENTIFIC ACTIVITIES

- TPC (Technical Program Committee) member of
  - IEEE VTC 2017 Fall - Track: 3 - Cognitive Radio and Spectrum Management.
  - IEEE WCNC 2016 - Track 3 - Mobile and Wireless Networks.
  - IEEE INFOCOM 2016 - Workshop of Green and Sustainable Networking and Computing (GSNC).
  - IEEE GLOBECOM - Workshop SAC CN 2016, 2015.
  - Wireless Days 2017, 2016, 2014.
  - IEEE ICC 2015 - Workshop on Cloud Computing Systems, Networks, and Applications (CCSNA).
  - IEEE ICC 2017 - SAC 3 CCN
  - IEEE ICCVE (International Conference on Connected Vehicles & Expo) 2014, 2013.
  - WINSYS (International Conference on Wireless Information Networks and Systems) 2016, 2014, 2013 and 2012.
  - NetGCooP 2014, 2012 and 2011 (International Conference on NETwork Games, COntrol and Optimization).
  - CFIP NOTERE 2016, 2015, ClOT 2016.
- “Assesseur” and member of the commission for hiring an associate professor at IUT of Paris Descartes University, 2012 (position 27MCF0321, Section 27, Computer Science).
- Member of the PhD Examination Jury for the Ph.D. thesis of Mario ALVARADO, Telecom ParisTech, September 25, 2015.
- Member of “Cahier du LIPADE”, who manages, validates and publishes the research reports of the LIPADE laboratory, since January 2011.
- *Proposal Reviewer* for the Qatar National Research Fund (QNRF), National Priorities Research Program (NPRP) and Postdoctoral Research Award (PDRA), February-March, 2014-2016.

## LIST OF SCIENTIFIC PUBLICATIONS

Downloadable versions of my papers are available at  
<http://www.mi.parisdescartes.fr/~jelias/publications.html>

My *h-index* is 11, my *g-index* is 18. Total number of citations: 398 (*Publish or perish*).

### International Journals (17)

1. M. Mangili, J. ELIAS, F. Martignon, A. Capone, **Optimal Planning of Virtual Content Delivery Networks under Uncertain Traffic Demands**, Elsevier Computer Networks, vol.106, pages 186–195, September 2016.
2. J. ELIAS, F. Martignon, L. Chen, M. Krunz, **Distributed Spectrum Management in TV White Space Networks**, accepted for publication in IEEE Transactions on Vehicular Technology, August 2016.
3. H.B. Elhadj, J. ELIAS, L. Chaari, L. Kamoun, **Multi Attribute Decision Making Handover Algorithm for Wireless Body Area Networks**, Elsevier Computer Communications, vol. 81, pages 97–108, May 2016.
4. H.B. Elhadj, J. ELIAS, L. Chaari, L. Kamoun, **A Priority based Cross Layer Routing Protocol for healthcare applications**, Elsevier Ad Hoc Networks, vol. 42, pages 1-18, May 2016.
5. A. Meharouech, J. ELIAS, A. Mehaoua, **A Two-Stage Game Theoretical Approach for Interference Mitigation in Body-to-Body Networks**, Elsevier Computer Networks, vol. 95, pages 15-34, February 2016.
6. J. ELIAS, F. Martignon, S. Paris, J. Wang, **Efficient Orchestration Mechanisms for Congestion Mitigation in NFV: Models and Algorithms**, accepted for publication in IEEE Transactions on Services Computing, November 2015.
7. J. ELIAS, S. Paris, M. Krunz, **Cross Technology Interference Mitigation in Body Area Networks: an Optimization Approach**, IEEE Transactions on Vehicular Technology, Vol. 64, Issue 9, pages 4144-4157, September 2015.
8. K. Avrachenkov, J. ELIAS, F. Martignon, G. Neglia, L. Petrosyan, **Cooperative Network Design: a Nash bargaining solution approach**, Elsevier Computer Networks, vol. 83, pages 265-279, 4 June 2015.
9. J. ELIAS, **Optimal design of energy-efficient and cost-effective Wireless Body Area Networks**, Elsevier Ad Hoc Networks, vol. 13, pages 560-574, February 2014.
10. J. ELIAS, F. Martignon, L. Chen, E. Altman, **Joint Operator Pricing and Network Selection Game in Cognitive Radio Networks: Equilibrium, System Dynamics and Price of Anarchy**, IEEE Transactions on Vehicular Technology, vol. 62, issue 9, pages 1-14, November 2013.
11. J. ELIAS, F. Martignon, G. Carello, **Very Large-Scale Neighborhood Search Algorithms for the Design of Service Overlay Networks**, Telecommunication Systems, vol. 49, no. 4, pages 391-408, 2012.
12. J. ELIAS, F. Martignon, A. Capone, E. Altman, **Non-Cooperative Spectrum Access in Cognitive Radio Networks: a Game Theoretical Model**, Elsevier Computer Networks, vol. 55, issue 17, pages 3832-3846, December 2011
13. J. ELIAS, F. Martignon, K. Avrachenkov, G. Neglia, **A Game Theoretic Analysis of Network Design with Socially-Aware Users**, Elsevier Computer Networks, vol. 55, n. 1, pages 106-118, January 2011.
14. A. Capone, J. ELIAS, F. Martignon, **Routing and Resource Optimization in Service Overlay Networks**, Elsevier Computer Networks, vol. 53, n. 2, pp. 180-190, February 2009.
15. A. Capone, J. ELIAS, F. Martignon, **Models and Algorithms for the Design of Service Overlay Networks**, IEEE Transactions on Network and Service Management, vol. 5, n. 3, pp. 143-156, September 2008.
16. J. ELIAS, F. Martignon, A. Capone, G. Pujolle, **A New Approach to Dynamic Bandwidth Allocation in Quality of Service Networks: Performance and Bounds**, Elsevier Computer Networks, vol. 51, n. 10, pp. 2833-2853, 11 July 2007.
17. J. ELIAS, F. Martignon, A. Capone, G. Pujolle, **Distributed Algorithms for Dynamic Bandwidth Provisioning in Communication Networks**, Journal of Communications (JCM), vol. 1, n. 7, pp. 47-56, November-December 2006.

## International Conferences (24)

1. L. Lahlou, A. Meharouech, J. ELIAS, A. Mehaoua, **MAC-Network Cross-Layer Energy Optimization model for Wireless Body Area Networks**, Joint 16th CFIP & 12th NOTERE, Paris, France, 21-24 July 2015.
2. A. Meharouech, J. ELIAS, A. Mehaoua, **Future Body-to-Body Networks for Ubiquitous Healthcare: A Survey, Taxonomy and Challenges**, Ubi-HealthTech 2015, Beijing, China, 28-30 May 2015.
3. J. ELIAS, M. Krunz, **Distributed Spectrum Management in TV White Space Cognitive Radio Networks**, IFIP Networking 2015, Toulouse, France, May 2015.
4. A. Meharouech, J. ELIAS, S. Paris, A. Mehaoua, **A Game Theoretical Approach for Interference Mitigation in Body-to-Body Networks**, IEEE ICC'15 - Workshop on ICT-enabled services and technologies for eHealth and Ambient Assisted Living, London, UK, June 2015.
5. A. Jarray, J. Salazar, A. Karmouch, J. ELIAS, A. Mehaoua, **QoS-based Cloud Resources Partitioning Aware Networked Edge Datacenters**, IFIP/IEEE IM 2015, Ottawa, Canada, May 2015.
6. J. ELIAS, F. Martignon, S. Paris, J. Wang, **Optimization Models for Congestion Mitigation in Virtual Networks**, in Proceedings of the 22nd IEEE International Conference on Network Protocols (ICNP 2014), Concise Papers Track (acceptance rate: 18.9%, 15 papers out of 79 submissions).
7. A. Meharouech, J. ELIAS, S. Paris, A. Mehaoua, **Socially-Aware Interference Mitigation Game in Body-to-Body Networks**, in Proceedings of the International Conference on NETWORK Games CONTROL and OPTIMIZATION 2014 (NETGCOOP 2014), short paper, Trento, Italy, October 29-31, 2014.
8. A. Jarray, J. Salazar, A. Karmouch, J. ELIAS, A. Mehaoua, **Column Generation based-Approach for IaaS Aware Networked Edge Data-Centers**, in Proceedings of IEEE Globecom 2014 Workshop - The 2nd International Workshop on Cloud Computing Systems, Networks, and Applications (CCSNA), Austin, Texas, December 2014.
9. J. ELIAS, A. Jarray, J. Salazar, A. Karmouch, A. Mehaoua, **A Reliable Design of Wireless Body Area Networks**, in Proceedings of IEEE GLOBECOM 2013, Atlanta, USA, December 2013.
10. S. Paris, J. ELIAS, A. Mehaoua, **Cross Technology Interference Mitigation in Body-to-Body Area Networks**, in Proceedings of IEEE WoWMoM 2013, Madrid, Spain, June 4-7, 2013.
11. J. ELIAS, F. Martignon, E. Altman, **Joint Pricing and Cognitive Radio Network Selection: a Game Theoretical Approach**, in Proceedings of WiOpt 2012, Paderborn, Germany, May 2012.
12. J. ELIAS, A. Mehaoua, **Energy-aware Topology Design for Wireless Body Area Networks**, in Proceedings of IEEE International Conference on Communications, ICC 2012, Ottawa, Canada, June 2012 (53 citations).
13. K. Avrachenkov, J. ELIAS, F. Martignon, G. Neglia, L. Petrosyan, **A Nash bargaining solution for Cooperative Network Formation Games**, in Proceedings of Networking 2011, Valencia, Spain, May 2011 (19 citations).
14. J. ELIAS, F. Martignon, A. Capone, E. Altman, **Competitive Interference-aware Spectrum Access in Cognitive Radio Networks**, in Proc. of the 8th Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks, WiOpt 2010, Avignon, France, June 2010 (7 citations).
15. J. ELIAS, F. Martignon, **Joint Spectrum Access and Pricing in Cognitive Radio Networks with Elastic Traffic**, in IEEE ICC 2010, Cape Town, South Africa, May 2010 (17 citations).
16. J. ELIAS, F. Martignon, **Joint QoS Routing and Dynamic Capacity Dimensioning with Elastic Traffic: A Game Theoretical Perspective**, in IEEE International Conference on Communications, ICC 2010, Cape Town, South Africa, May 2010.
17. J. ELIAS, F. Martignon, K. Avrachenkov, G. Neglia, **Socially-Aware Network Design Games**, in Proceedings of the 29th IEEE Conference on Computer Communications (INFOCOM 2010), March 2010, San Diego, CA, USA (19 citations).
18. E. Altman, J. ELIAS, F. Martignon, **A Game Theoretic Framework for joint Routing and Pricing in Networks with Elastic Demands**, in Proceedings of the 4th International Conference on Performance Evaluation Methodologies and Tools (VALUETOOLS 2009), October 2009, Pisa, Italy.
19. A. Capone, J. ELIAS, F. Martignon, **Optimal Design of Service Overlay Networks**, in Proceedings of the Fourth International Telecommunication Networking Workshop on QoS in Multiservice IP Networks, IT-NEWS 2008, Venice, Italy, February 2008 (11 citations).



20. J. ELIAS, F. Martignon, A. Capone, **An Efficient Dynamic Bandwidth Allocation Algorithm for Quality of Service Networks**, in *Autonomic Networking 2006 (INTELLCOMM 2006)*, Paris, France, 27-29 September 2006, also published in *Springer Lecture Notes in Computer Science Volume #4195*, pp. 132-145 (acceptance rate: 25%) .
21. A. Capone, J. ELIAS, F. Martignon, G. Pujolle, **Dynamic Resource Allocation in Communication Networks**, in *Networking 2006*, Coimbra, Portugal, 15-19 May 2006, also published in *Springer Lecture Notes in Computer Science, Volume #3976*, pp. 892-903 (acceptance rate: 20%, 9 citations).
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