FABIO MARTIGNON – Curriculum Vitae

CONTACT INFORMATION

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CURRENT POSITION

- Since September 2011, I am **Full Professor ("Professeur des Universités")** in Computer Science, Laboratoire de Recherche en Informatique, LRI, Université Paris-Sud, France (Paris-Sud University is currently ranked 41st in the world according to the Academic Ranking of World Universities),
    - In the same year, I was also classified 1st among 82 participants at the French **CNRS Senior Researcher** *"CR1"* competition, Computer Science section, April 2011.
- *Leader* of the "Algorithms for Networked Systems" group at LRI (7 permanent members, approximately 12 Ph.D. students/interns).
- October 2013 – September 2018: *Junior Member* of the **Institut Universitaire de France**. (Only 2% of French University Professors have been currently distinguished by IUF.)
- Recipient of the *Scientific Excellence Prize* (Prime d'Excellence Scientifique), 2013 – 2018, at the national level.
- Member of the IEEE Communications Society.

- Since October 2014: Elected member in the **Board of Directors** (4 years) of Ecole Polytechnique, Paris-Sud University.
- Since April 2012: Member of the Research Committee, Department of Computer Science – Paris-Sud University.
- Since September 2014: manager of the last year of the Computer Science program.

PREVIOUS POSITION AND RESPONSIBILITES

- From September 2011 to August 2013 I have been **Co-Director** of the Department of Computer Science at Polytech Paris-Sud (the School of Engineering at Université Paris-Sud)
- From February 2005 to August 2011 I have been tenured **Assistant Professor ("Ricercatore Confermato"**, equivalent to "Maître de Conférences") in the Telecommunications section, Faculty of Engineering, University of Bergamo, Italy.
- **Head of the Telecommunications area** at the Faculty of Engineering, University of Bergamo.
- **Member of the Department Steering Board**, Department of Information Technology and Mathematical Methods, 2006 – 2010.
- **Member of the B.Sc. and M.Sc. program in Information Engineering**, University of Bergamo, 2005 – present.
- **Member of the Patent Technical Committee**, University of Bergamo, 2006 – 2010.

FORMATION and TITLES

- **Habilitation à Diriger des Recherches**, obtained in December 2010 at Université Paris 6.
    - Title: Efficient Design and Performance Analysis of Wireless Mesh and Overlay Networks.

- **European Doctorate (Ph.D. degree)** in Information Technology, obtained cum laude in May 2005 at the Department of Electronics and Information, Politecnico di Milano, Italy.
  - Ph.D. thesis title: "Enhanced Bandwidth Estimation and Loss Differentiation in the TCP Congestion Control Scheme". Advisor: Prof. Antonio Capone.
- **Laurea** (M.Sc. degree equivalent) in Telecommunications Engineering, October 2001, Politecnico di Milano, Italy, final score 100/100 cum laude. Advisor: Prof. Luigi Fratta.
- **Diploma** (B.Sc. degree equivalent) in Science, July 1996, Liceo Scientifico Galileo Ferraris (Varese), final score 60/60.
- **Degree** obtained from "Scuola Normale Superiore di Pisa" for having passed the final exam of the "Advanced School on Mobile Computing", held in Scuola Normale Superiore di Pisa, September 2003.
- **Qualification** to "Professeur des Universités" function, Conseil National des Universités, Sections 27 (Computer Science) and 61 (Electrical Engineering, Control and Signal Processing), Feb. 2011.

PRIZES and AWARDS

- **Recipient of the D. Chorafas prize 2005,** in recognition of my doctoral thesis "Enhanced Bandwidth Estimation and Loss Differentiation in the TCP Congestion Control Scheme".
- **Best Paper Award** for the paper "A Comparative Study of Content-Centric and Content-Distribution Networks: Performance and Bounds", IEEE Globecom 2013 conference, Atlanta, USA, December 2013 (best paper among 841 accepted papers and 2272 submitted papers).
- **Best Student Paper Award** awarded by the IEEE Technical Committee on Simulation (TCSIM), for the paper "A Comparative Study of Content-Centric and Content-Distribution Networks: Performance and Bounds", December 2013.
- **Best Student Paper Award** awarded by the Network of Excellence Newcom# (Network of Excellence in Wireless Communications) for the paper "Defeating jamming with the power of silence: a game-theoretic analysis", IEEE Trans. on Wireless Communications, Sep. 2015.
- **Best 50 papers of IEEE Globecom 2014** for the paper "Content-Aware Planning Models for Information-Centric Networking", IEEE Globecom 2014, Austin, Texas, December 2014. (best 50 papers out of 2171 submissions)
- **Best Paper Award** for the paper "Topology Design and Capacity Dimensioning of Service Overlay Networks", PhDay 2008 conference, Politecnico di Milano, Italy, June 2008.
- **Awarded full scholarship** for the Advanced School on Mobile Computing, "Scuola Normale Superiore", Pisa, Italy, September 2003.
- 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%).

RESEARCH ACTIVITIES

Research grants and contracts obtained

- *Submitted* (and already accepted in the first evaluation phase): principal investigator and national coordinator of the project "**Smart Energy Infrastructures and Solutions for 5G Networks**", accepted in the first phase of the ANR 2015 call. The consortium includes Paris-Sud University (leader), Orange Labs, Alcatel-Lucent Bell Labs Francia, INRIA, CEA-Leti, Rouen University. Total amount: 800 K€.

- Individual Grant from *Institut Universitaire de France* (IUF), 5 years (October 2013 - October 2018), **"Optimal Design of Secure, Scalable, Autonomic Content Centric Networks"**. Amount: 275 K€.
- **"DynaRoC"**, Dynamic Resource Orchestration for Cloud-RAN, grant for a 3-year PhD position founded by Labex DigiCosme. (October 2015 – October 2018). Amount: approximately 108 K€.
- **"Green Dynamic Spectrum Aggregation"** (**Green-Dyspan**, March 2013 – February 2016). A total of 7 projects were selected out of 58 submissions within the ANR Blanc International 2 program. Role: Co-Principal Investigator and WP Leader. Amount: 190 K€.
- **"Heterogeneous Mobile Networks for Green Cellular Communications"**, grant for a 3-year PhD position founded by Paris-Sud University. First (ex-aequo) among 76 proposals, (October 2012 – October 2015). Amount: approximately 100 K€.
- **"ODESSA-CCN"**, grant for a 3-year PhD position founded by Labex DigiCosme. (October 2013 – October 2016). Amount: approximately 105 K€.
- **"NEWCOM#"** (**Network of Excellence in Wireless Communications**), 3-year project (November 2012 – November 2015). Amount: approximately 44 K€.
- **"GATEway-based architecture for content-centric COMmunity networking" (GATECOM)**, PRIN 2009 project funded by the Italian Ministry of Education and University. Amount for University of Bergamo: 76 K€ (personnel costs of university employees were not included in the budget).
- **"Scalable Efficient Secure Autonomic MEsh networks" (SESAME)**, PRIN 2007 project funded by the Italian Ministry of Education and University. Amount for University of Bergamo: 52 K€ (personnel costs of university employees were not included in the budget).
- **"Game Theory applications to telecommunication networks and distributed systems"**, grant for a 3-year post-doc position funded by Regione Lombardia (June 2010 – June 2013). Amount: 63 K€.
- **"Experimental Analysis of Green Mobile Networks"**, grant "Attractiveness 2013" funded by Paris-Sud University (January – December 2013). Amount: 8 K€.
- Head of the Paris-Sud University Research Unit for the FP7 CARE project, **"Cognitive Access and Rendezvous Experiments"**, January-September 2014.

Participation to National and International Research Projects

- **September 2008 – September 2010: Head of the University of Bergamo Research Unit**, project **PRIN SESAME (Scalable Efficient Secure Autonomic MEsh networks)**, related to the study and implementation of efficient algorithms and protocols for Wireless Mesh networks. I coordinated the activities of 2 assistant professors, 1 post-doc researcher and 2 Ph.D. students.
- **December 2003 – November 2006:** Participation to the **Network of Excellence Euro-NGI: Design and Engineering of the Next Generation Internet (6FP)**, working in the context of Traffic Engineering, QoS Routing, Traffic and Congestion Control.
- **November 2002 – November 2005:** Participation to the national project **FIRB VICOM (Virtual Immersive Communications)**, for which I designed and developed a novel TCP Linux kernel module, implementing a new transport protocol and testing it in a real network environment.
- **2001 – 2003:** Participation to the **FIRB Tango project (Traffic models and Algorithms for Next Generation IP networks Optimization)**, for which I developed efficient and novel QoS routing algorithms and transport protocols.

Industrial Collaborations

I have worked in the following research contracts:

❑ Espia s.r.l (Milan), **"Study and implementation of advanced IP Telephony solutions for wired and wireless access networks"**. The cooperation led to the development of a new networking device, called "VoiSmart Traffic Shaper", now commercialized by Espia.

❑ Politecnico di Milano and Nokia Siemens Networks, "Pitagora" project on the theme **"Mobility Management schemes: evolution of Mobile IP for wireless networks"**. Within this cooperation, I studied the performance of transport protocols in cellular systems.

❑ Politecnico di Milano – Fondazione Politecnico and Alcatel-Lucent, **"Passive Optical Networks: dynamic bandwidth allocation in CSMA/CD-based multiple access networks"**. This cooperation led to the development of efficient and completely distributed dynamic bandwidth allocation algorithms in Passive Optical Networks. The cooperation also led to the issue of a patent "Distributed Bandwidth Allocation Method for Passive Networks with CSMA/CD Access".

Scientific Collaborations and Research Visits

Since 2004, I have been invited to visit several prestigious research laboratories in France, including *LIP6* (16 months in the Phare team, 4 months in the NPA team), the *MAESTRO team* at *INRIA Sophia Antipolis – Méditerranée* (8 months), the *Laboratoire Informatique d'Avignon* (3 weeks). Here is the list of my research visits and scientific collaborations:

❑ I have visited the **MAESTRO** team (director: Dr. Philippe Nain) at **INRIA, Sophia Antipolis – Méditerranée**, from November 29 to December 28, 2013, from October 15, 2008 to January 15, 2009, and from July 3, 2009 to October 25, 2009. I am cooperating with the members of the MAESTRO team on two main research topics: the development of novel cooperative network design models and the application of game theory to communications networks (in particular, modeling the economic interactions between Internet Service Providers, Internet Users and virtual operators).

❑ I have been Visiting Researcher in the **NPA** team (Networks and Performance Analysis) at **Laboratoire d'Informatique de Paris 6 (LIP6), Université Pierre et Marie Curie, Paris** (director: Prof. Sébastien Tixeuil), from September 15, 2010, to January 31, 2011, working with Dr. Marcelo Dias de Amorim on routing issues in Wireless Multihop networks.

❑ I have been invited by Dr. Eitan Altman to visit the **Laboratoire Informatique d'Avignon (LIA)**, France, for 3 weeks in November 2009. I am cooperating with Dr. Altman on game theory applied to cognitive radio networks.

❑ I have been Visiting Researcher at the **LIP6, Université Pierre et Marie Curie, Paris**, within the Réseaux et Performances (**Phare**) group (director: Prof. Guy Pujolle), in the following periods: January – September 2004, July – August 2005, November 2005 – January, 2006, July – August 2006. During my visits, I have cooperated with the team members on the following issues: protection and security in optical networks, dynamic bandwidth allocation in Quality of Service Networks, ad hoc and sensor networks.

- **Computer Science and Networking group, Telecom ParisTech** (prof. Dario Rossi): since 2010 I cooperate with prof. Dario Rossi on research themes related to content distribution in communication networks (this cooperation led to a joint research project and the co-direction of a Ph.D. thesis on this topic).

- **Advanced Network Technologies Laboratory (ANTLab), Politecnico di Milano** (Professors Luigi Fratta, Antonio Capone, Flaminio Borgonovo): since 2000, I am founding member of the ANTLab team, with which I cooperate on several research activities like wireless mesh networks, enhanced flow and congestion control schemes for high speed networks, optical access networks.

- **Operating Research group, Politecnico di Milano** (Professors Federico Malucelli and Edoardo Amaldi): since 2002 I cooperate with the Network Optimization laboratory in Politecnico di Milano on several optimization problems, including content-aware network planning.

RESEARCH TOPICS

My research interests focused primarily on the research problems that characterize (1) wireless and mobile networks, (2) content-centric and virtual networks, and (3) high speed/optical networks. My concern has been to focus on designing new and more efficient algorithms and protocols to satisfy the increasing bandwidth demands and tighter Quality of Service requirements of user applications while, at the same time, guaranteeing security and confidentiality of the data exchanged in the network.

- **Wireless and Mobile Networks**

  - I am studying, in the context of research project in which I am currently leader, novel technologies and system-wide approaches (including Caching, Offloading, and Cognitive solutions) to design *Next Generation Mobile/5G Networks*.
  - I studied the pricing and spectrum access problems in Cognitive Radio networks, proposing novel game theoretical approaches. In this context I provided sufficient conditions for the existence and uniqueness of the Nash equilibrium under a variety of cost functions, and I derived optimal price and routing settings.
  - I developed novel MAC (Medium Access Control) and routing protocols for Wireless Mesh Networks equipped with directional and adaptive antennas, as well as enhanced routing metrics tailored for Wireless Mesh Community networks.
  - I proposed mathematical models and heuristic algorithms to solve the joint routing, scheduling and channel allocation problem in Wireless Mesh Networks.
  - I implemented novel security architectures, both centralized and completely distributed, to guarantee the security and confidentiality of all data exchanged in wireless multi-hop networks.

❑ **Content-Centric and Virtual Networks**

- I tackled the optimal content placement and planning problem tailored for the novel network paradigm of *information-centric/content-centric networks*.
- In the **Network Functions Virtualization** (**NFV**) context, I addressed the virtual network embedding and resource allocation problems, developing both centralized and distributed algorithms for the management and orchestration of network services.
- *Distributed Overlay Network Design – A Game Theoretical Perspective*. I have introduced new distributed algorithms for the design of overlay networks, and in particular peer-to-peer networks (this consists in defining and investigating the interactions between client users, overlay operators and Internet service providers, which ensure connectivity at the IP layer).
- I implemented new bandwidth estimation and traffic shaping algorithms for Voice over IP (VoIP) networks. This study, conducted in cooperation with an Italian company (Espia–VoiSmart), led to the creation of a new network device, named Traffic Shaper, to improve the quality of VoIP calls.
- I developed novel, distributed algorithms, as well as mathematical models, for the virtual network planning problem, using a game theoretical approach.
- I studied efficient bandwidth allocation algorithms for Quality of Service networks.
- I proposed enhanced Quality of Service routing algorithms for MPLS/GMPLS networks.

❑ **High-Speed/Optical Networks**

- I proposed fully distributed bandwidth allocation algorithms for Passive Optical Networks. This activity has been conducted in cooperation with Alcatel–Lucent Italy, and led to the filing of a national patent.
- I developed novel protection techniques in WDM optical networks, incorporating for the first time a notion of priority and service differentiation.

SUPERVISION OF RESEARCH ACTIVITIES

I supervised the research activities of several students, both at the Master and Ph.D. level.
In particular, I advised the following Ph.D. students at Paris-Sud University and Politecnico di Milano:

Ph.D. Student	Subject	Graduation
Mira Morcos	Cloud-RAN Resource Allocation	November 2018 (exp)
Andrea Araldo	Content Centric Networks	October 2016 (exp)
Michele Mangili	Heterogeneous Mobile Networks	December 2015
Stefano Paris	Security in Wireless Mesh Networks	December 2010
Jocelyne Elias	Overlay Network Formation	December 2009
Ilario Filippini	Optimization of Wireless Networks	April 2009

- Jocelyne Elias is now Maître de Conférences (Associate Professor) at Université Paris Descartes (since September 2010).
- Ilario Filippini is Ricercatore (Assistant Professor) at Politecnico di Milano (since October 2011).
- Stefano Paris is now Maître de Conférences (Associate Professor) at Université Paris Descartes (since September 2012), and Senior Research Engineer at Huawei Technologies, France (since December 2014).

❑ I advised the following Master students at University of Bergamo:

Master Student	Subject	Academic Year
Ugo Lusardi	Network Troubleshooting	2009/2010
Riccardo Tribbia	Wireless Network Planning	2008/2009
Fabiano Battain	Overlay Network Planning	2008/2009
Stefano Paris	Security in Wireless Mesh Networks	2006/2007
Giovanni Bosio	Security in Wireless Networks	2006/2007
Danilo Badoni	Security in Wireless Networks	2005/2006

❑ I further co-advised the following Master students:

Master Student	Subject	Academic Year
Guido Caldara	Green Routing	2009/2010
Luca Cecchini	Admission Control for VoIP	2006/2007
Gianluca Montemagno	Multi-channel MAC protocols for WMNs	2005/2006
Francesco Vigo	Dynamic Channel Assignment for WMNs	2005/2006
Emanuele Colombo	Bandwidth Allocation in IP networks	2005/2006
Francesco Arnoldi	Dynamic bandwidth allocation in PONs	2005/2006
Stefano Villa	Dynamic bandwidth allocation in PONs	2004/2005
Davide Mallia	Enhanced MAC protocols for WMNs	2004/2005
Daniele Mapelli	Enhanced MAC protocols for WMNs	2004/2005

INVITED TALKS and TUTORIALS

During the last years, I have been invited by several Universities and research laboratories to give the following talks and tutorials:

❑ **"A Network-Planning Perspective for the Migration to Content-Centric Networking"**, ROADEF 2015, 16th ROADEF Conference (Société Française de Recherche Opérationnelle et Aide à la Décision), February 2015.
❑ **"Network Functions Virtualization for Content Delivery Networks: A Network Planning Perspective"**, 12th Italian Networking Workshop, Cavalese, Italy, January 2015.
❑ **"Joint Pricing and Network Selection Game in Cognitive Radio Networks"**, AlgoGT 2013, Workshop on Algorithmic Game Theory: Learning Algorithms and Dynamics in Distributed Systems, Grenoble, France, July 2013.
❑ **"Designing Content Centric Networks: optimal routing, bandwidth allocation and content placement",** Journée Optimisation pour les Réseaux, organized by pôle MathSTIC, Paris 13 University, July 2013.
❑ **"Efficient Bandwidth Allocation in Heterogeneous Wireless Networks"**, 25th DNAC Congress (New Architectures for Communications), Paris, November 2011.
❑ **"Efficient Routing and Topology Management schemes in Wireless Mesh and Service Overlay Networks"**, Université Paris 13, February 2011.
❑ **"Efficient Routing and Spectrum Management schemes in Wireless Multi-Hop Networks"**, Télécom SudParis, Paris, January 2011.
❑ **"Spectrum Access in Cognitive Radio Networks"**, 24th DNAC Congress (New Architectures for Communications), Paris, November 2010.
❑ **"MobiSEC: A Novel Security Architecture for Wireless Mesh Networks"**, EuroNF Workshop on Wireless and Mobility in the Network of the Future, Como, Italy, June 2010.
❑ **"Socially-Aware Network Design Games"**, EuroNF Workshop on Wireless and Mobility in the Network of the Future, Villa Vigoni, Como, Italy, June 2010.
❑ **"Multi-channel Power-Controlled Directional MAC for Wireless Mesh Networks"**, Italian Networking Workshop, Cortina, Italy, January 2009.

- ❑ **"Networking Research Activities at University of Bergamo"**, INRIA Sophia Antipolis – Méditerranée, October 2008.
- ❑ **"Power-Controlled Directional Medium Access Control for Wireless Mesh Networks"**, Italian Networking Workshop, Bardonecchia, Italy, January 2007.
- ❑ **"Improving TCP Performance over Wireless Networks using Loss Differentiation Algorithms"**, IEEE MWCN'04 conference, Paris, France, October 2004.
- ❑ **"Analysis of Dynamic Quality of Service Routing Algorithms"**, IEEE International Conference on Communications, ICC 2004, Paris, June 2004.
- ❑ **"Implementation of routing Protocols for Ad Hoc Networks"**, CEFRIEL IT Research Center, Milano, Italy, January 2004.
- ❑ **"Virtual Flow Deviation: Dynamic Routing of Bandwidth Guaranteed Connections"**, 2nd Inter. nal Workshop on Quality of Service in Multiservice IP Networks, Milan, Italy, Feb. 2003.
- ❑ **"Enhanced Bandwidth Estimation Algorithms in the TCP Congestion Control Scheme"**, IFIP NET-CON 2002, Paris, October 2002.
- ❑ **"TCP with Bandwidth Estimation over Wireless Networks"**, IEEE VTC Fall 2002 conference, Vancouver, CA, September 2002.
- ❑ **"TCP with Bandwidth Estimation over Wireless Networks"**, Network Research Lab, Computer Science Department, University of California, Los Angeles (UCLA), Sep. 2002.
- ❑ **"Enhancing Transport Protocol Performance over Wireless Networks"**, ST Microelectronics, La Jolla, San Diego (California), September 2002.

PUBLICATIONS and PATENTS

- ▪ Downloadable versions are available at: *http://www.lri.fr/~fmartignon/publications.html*
- ▪ My h-index is equal to **19**, my g-index is 26. Total number of citations: 941.
- ▪ <u>Underlined authors</u> are Ph.D. students I supervised.

International Journals (32)

1. J. Elias, F. MARTIGNON, L. Chen, M. Krunz, **"Distributed Spectrum Management in TV White Space Networks"**, accepted for publication in IEEE Trans. on Vehicular Technology, July 2016.
2. <u>M. Mangili</u>, J. Elias, F. MARTIGNON, A. Capone, **Optimal Planning of Virtual Content Delivery Networks under Uncertain Traffic Demands**, accepted for publication in Elsevier Computer Networks, June 2016.
3. <u>M. Mangili</u>, F. MARTIGNON, S. Paris, A. Capone, **Efficient and Truthful Auction Mechanism for Bandwidth and Cache Leasing in Wireless Information Centric Networks**, accepted for publication in IEEE Trans. on Vehicular Technology, March 2016.
4. <u>M. Mangili</u>, F. MARTIGNON, A. Capone, **Performance Analysis of Content-Centric and Content-Delivery Networks with Evolving Object Popularity**, Elsevier Computer Networks, vol. 94, pages 80-98, January 2016.
5. 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, October 2015.
6. <u>M. Mangili</u>, F. MARTIGNON, A. Capone, **Optimal Design of Information Centric Networks**, Elsevier Computer Networks, vol. 91, pages 638-653, November 2015.
7. <u>A. Araldo</u>, D. Rossi, F. MARTIGNON, **Cost-aware caching: Caching more (costly items) for less (ISPs operational expenditures)**, accepted for publication in IEEE Transactions on Parallel and Distributed Systems, May 2015.

8. S. Paris, F. MARTIGNON, I. Filippini, L. Chen, **An Efficient Auction-based Mechanism for Mobile Data Offloading**, IEEE Transactions on Mobile Computing, vol. 14, issue 8, pages 1573-1586, August 2015.

9. 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, June 2015.

10. S. D'Oro, L. Galluccio, G. Morabito, S. Palazzo, L. Chen, F. MARTIGNON, **Defeating jamming with the power of silence: a game-theoretic analysis**, **An Efficient Auction-based Mechanism for Mobile Data Offloading**, IEEE Transactions on Wireless Communications, vol. 14, issue 5, pages 2337-2352, May 2015.

11. F. MARTIGNON, S. Paris, I. Filippini, L. Chen, A. Capone, **Efficient and Truthful Bandwidth Allocation in Wireless Mesh Community Networks**, IEEE/ACM Transactions on Networking, vol. 23, issue 1, pages 161-174, February 2015.

12. A. Barbato, A. Capone, L. Chen, F. MARTIGNON, S. Paris, **A Distributed Demand-Side Management Framework for the Smart Grid**, Elsevier Computer Communications, vol. 57, pages 13-24, February 2015.

13. M. Mangili, F. MARTIGNON, S. Paraboschi, **A Cache-Aware Mechanism to Enforce Confidentiality, Trackability and Access Policy Evolution in Content-Centric Networks**, Elsevier Computer Networks, vol. 76, pages 126-145, January 2015.

14. 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.

15. S. Paris, C. Nita-Rotaru, F. MARTIGNON, A. Capone, **Cross-Layer Metrics for Reliable Routing in Wireless Mesh Networks**, IEEE/ACM Transactions on Networking, vol. 21, issue 3, pages 1003-1016, June 2013.

16. 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.

17. F. MARTIGNON, **Multi-Channel Power-Controlled Directional MAC for Wireless Mesh Networks**, Wireless Communications and Mobile Computing, vol. 11, issue 1, pages 90-107, January 2011.

18. J. Elias, F. MARTIGNON, K. Avrachenkov, G. Neglia, **"A Game Theoretic Analysis of Network Design with Socially-Aware Users"**, Elsevier Computer Networks, vol. 55, issue 1, pages 106-118, Janvier 2011.

19. S. Paris, C. Nita-Rotaru, A. Capone, F. MARTIGNON, **"A Cross-Layer Reliability Metric for Wireless Mesh Networks with Selfish Participants"**, ACM Mobile Computing and Communications Review, vol. 14, issue 3, Juillet 2010.

20. J. Elias, F. MARTIGNON, G. Carello, **"Very Large-Scale Neighborhood Search Algorithms for the Design of Service Overlay Networks"**, Telecommunication Systems, vol. 49, issue 4, pages 391-408, April 2012.

21. F. MARTIGNON, S. Paris, A. Capone, **"DSA-Mesh: a Distributed Security Architecture for Wireless Mesh Networks"**, Wiley Security and Communication Networks, vol. 4, issue 3, pages 242-256, March 2011.

22. F. MARTIGNON, S. Paris, A. Capone, **"Design and Implementation of MobiSEC: a Complete Security Architecture for Wireless Mesh Networks"**, Elsevier Computer Networks, vol. 53, issue 12, pages 2192-2207, August 2009.

23. A. Capone, J. Elias, F. MARTIGNON, **"Routing and Resource Optimization in Service Overlay Networks"**, Elsevier Computer Networks, vol. 53, issue 2, pages 180-190, February 2009.

24. A. Capone, <u>J. Elias</u>, F. MARTIGNON, **"Models and Algorithms for the Design of Service Overlay Networks"**, IEEE Transactions on Network and Service Management, vol. 5, issue 3, pages 143-156, September 2008.

25. A Capone, F. MARTIGNON, L. Fratta, **"Directional MAC and Routing Schemes for Power Controlled Wireless Mesh Networks with Adaptive Antennas"**, Elsevier Ad Hoc Networks Journal, vol. 6, no. 6, pp. 936-952, August 2008.

26. <u>J. Elias</u>, 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, no. 10, pp. 2833-2853, July 2007.

27. A. Capone, F. MARTIGNON, **"A Multi-Commodity Flow Model for Optimal Routing in Wireless MESH Networks"**, Journal of Networks, vol. 2, no. 3, pp. 1-5, June 2007.

28. <u>J. Elias</u>, F. MARTIGNON, A. Capone, G. Pujolle, **"Distributed Algorithms for Dynamic Bandwidth Provisioning in Communication Networks"**, Journal of Communications (JCM), vol. 1, no. 7, pp. 47-56, November-December 2006.

29. W. Fawaz, F. MARTIGNON, K. Chen, G. Pujolle, **"A Novel Fault Management Approach for DWDM Optical Networks"**, ACM International Journal of Network Management, vol. 16, no. 5, pp. 337-349, September-October 2006.

30. A. Capone, L. Fratta, F. MARTIGNON, **"Dynamic Online QoS Routing Schemes: Performance and Bounds"**, Elsevier Computer Networks, vol. 50, no. 7, pp. 966-981, May 2006.

31. A. Capone, L. Fratta, F. MARTIGNON, **"Bandwidth Estimation Schemes for TCP over Wireless Networks"**, IEEE Transactions on Mobile Computing, vol. 3, no. 2, pp 129-143, April-June 2004.

32. A. Capone, L. Fratta, F. MARTIGNON, **"Dynamic Routing of Bandwidth Guaranteed Connections in MPLS Networks"**, International Journal on Wireless and Optical Communications, vol. 1, no. 1, pp. 75-86, June 2003.

Patent (1)

1. A. Capone, F. MARTIGNON, F. Borgonovo, **"Distributed Bandwidth Allocation Method for Passive Networks with CSMA/CD Access"**, Patent number BG06A000022, filed on April 28, 2006, Italy.

International Conferences (48)

1. A. Araldo, F. MARTIGNON, D. Rossi, **Representation Selection Problem: Optimizing Video Delivery Through Caching**, accepted for publication in Networking 2016, Wien, May 2016 (acceptance rate: 26.5%).

2. A. Barbato, A. Capone, L. Chen, F. MARTIGNON, S. Paris, **Distributed Demand-Side Management in Smart Grid: how Imitation improves Power Scheduling**, in Proc. of IEEE ICC 2015, London, UK, June 2015.

3. <u>M. Mangili</u>, F. MARTIGNON, A. Capone, F. Malucelli, **Content-Aware Planning Models for Information-Centric Networking**, in Proc. of IEEE Globecom 2014, Austin, Texas, December 2014. **Best 50 papers of Globecom 2014** (best 50 papers out of 2171 submissions).

4. <u>A. Araldo</u>, <u>M. Mangili</u>, F. MARTIGNON, D. Rossi, **Cost-aware caching: optimizing cache provisioning and object placement in ICN**, in Proc. of IEEE Globecom 2014, Austin, Texas, December 2014.

5. A. Barbato, L. Chen, F. MARTIGNON, S. Paris, **A Multi-Armed Bandit Formulation for Distributed Appliances Scheduling in Smart Grids**, in Proc. of IEEE GreenComm 2014 (IEEE Conference on Green Communications), October 2014.

6. J. Elias, F. MARTIGNON, S. Paris, J. Wang, **Optimization Models for Congestion Mitigation in Virtual Networks**, in Proc. 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. M. Mangili, F. MARTIGNON, A. Capone, **Stochastic Planning for Content Delivery: Unveiling the Benefits of Network Functions Virtualization**, in Proc. of the 22nd IEEE International Conference on Network Protocols (ICNP 2014), Concise Papers Track (acceptance rate: 18.9%, 15 papers out of 79 submissions).

8. A. Barbato, A. Capone, L. Chen, F. MARTIGNON, S. Paris, **Distributed Learning Algorithms for Scheduling Games in the Future Smart Grid**, in Proceedings of the International Conference on NETwork Games, COntrol and OPtimization Wireless Days (NetGCoop 2014), Trento, Italy, October 2014.

9. A. Araldo, D. Rossi, F. MARTIGNON, **Design and Evaluation of Cost-aware Information Centric Routers**, accepted to the 1st ACM Conference on Information-Centric Networking, ICN-2014 (full paper, acceptance rate: 17%).

10. L. Chen, S. D'Oro, L. Galluccio, F. MARTIGNON, G. Morabito, S. Palazzo, **A Game-Theoretic Analysis of Anti-Jamming Timing Channels**, European Conference on Networks and Communications (EuCNC 2014), Bologna, Italy, June 2014.

11. M. Mangili, F. MARTIGNON, A. Capone, **A Comparative Study of Content-Centric and Content-Distribution Networks: Performance and Bounds**, in Proceedings of IEEE Globecom 2013, Atlanta, GA, USA, December 2013. **Best Paper Award.**

12. M. Mangili, F. MARTIGNON, S. Paris, A. Capone, **Efficient Joint Bandwidth and Cache Leasing in Information Centric Networks**, in Proceedings of IEEE Globecom 2013, Atlanta, GA, USA, December 2013.

13. S. Paris, F. MARTIGNON, I. Filippini, L. Chen, **A Bandwidth Trading Marketplace for Mobile Data Offloading**, in Proceedings of IEEE INFOCOM 2013 (Mini-conference), Turin Italy, April 2013 (acceptance rate < 25%)

14. A. Barbato, A. Capone, L. Chen, F. MARTIGNON, S. Paris, **A Power Scheduling Game for Reducing the Peak Demand of Residential Users**, in Proceedings of IEEE GreenComm 2013 (IEEE Conference on Green Communications), October 2013.

15. S. Paris, F. MARTIGNON, I. Filippini, A. Capone, **A Truthful Auction for Access Point Selection in Heterogeneous Mobile Networks**, in Proceedings of ICC 2012, Ottawa, Canada, June 2012.

16. 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.

17. F. MARTIGNON, S. Paris, I. Filippini, A. Capone, "**Efficient Bandwidth Allocation in Wireless Community Networks**", in Proceedings of Wireless Days 2011, Niagara Falls, Ontario, Canada, October 2011.

18. S. Paris, F. MARTIGNON, I. Filippini, A. Capone, "**A Bandwidth Marketplace for Heterogeneous Mobile Networks**", in Proceedings of the International Conference on NETwork Games, COntrol and OPtimization Wireless Days (NetGCoop 2011), Paris, France, October 2011.

19. F. MARTIGNON, S. Paris, A. Capone, "**Optimal Node Placement in Distributed Wireless Security Architectures**", in Proceedings of Networking 2011, Valencia, Spain, May 2011.

20. 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.

21. <u>S. Paris</u>, C. Nita-Rotaru, F. MARTIGNON, A. Capone, **"EFW: A Cross-Layer Metric for Reliable Routing in Wireless Mesh Networks with Selfish Participants"**, in Proceedings of the 30th IEEE Conference on Computer Communications (INFOCOM 2011), Shangai, China, April 2011. (acceptance rate: 16%)

22. <u>J. Elias</u>, F. MARTIGNON, A. Capone, E. Altman, **"Competitive Interference-aware Spectrum Access in Cognitive Radio Networks"**, in Proceedings of the 8th Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks, WiOpt 2010, Avignon, France, June 2010.

23. <u>J. Elias</u>, F. MARTIGNON, **"Joint Spectrum Access and Pricing in Cognitive Radio Networks with Elastic Traffic"**, in IEEE International Conference on Communications, ICC 2010, Cape Town, South Africa, May 2010.

24. <u>J. Elias</u>, 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.

25. <u>J. Elias</u>, F. MARTIGNON, K. Avrachenkov, G. Neglia, **"Socially-Aware Network Design Games"**, in Proceedings of the 29th IEEE Conference on Computer Communications (INFOCOM 2010), San Diego, CA, USA, March 2010. (acceptance rate: 17.5%)

26. E. Altman, <u>J. Elias</u>, F. MARTIGNON, **"A Game Theoretic Framework for joint Routing and Pricing in Networks with Elastic Demands"**, in Proc. of the 4th International Conference on Performance Evaluation Methodologies and Tools (VALUETOOLS 2009), Pisa, Italy, October 2009.

27. F. MARTIGNON, <u>S. Paris</u>, A. Capone, **"A Framework for Detecting Selfish Misbehavior in Wireless Mesh Community Networks"**, in Proceedings of the 5th ACM International Symposium on QoS and Security for Wireless and Mobile Networks, Q2SWinet, Tenerife, Spain, October 2009.

28. F. MARTIGNON, <u>S. Paris</u>, **"Experimental Study of Security Architectures for Wireless Mesh Networks"**, in Proceedings of the 6th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks, SECON 2009, Rome, Italy, June 2009.

29. F. MARTIGNON, <u>S. Paris</u>, A. Capone, **"MobiSEC: A Novel Security Architecture for Wireless Mesh Networks"**, in Proc. of the 4th ACM International Symposium on QoS and Security for Wireless and Mobile Networks, Q2SWinet, Vancouver, Canada, October 2008.

30. A. Capone, <u>I. Filippini</u>, F. MARTIGNON, **"Joint Routing and Scheduling Optimization in Wireless Mesh Networks with Directional Antennas"**, in Proceedings of the IEEE International Conference on Communications, ICC 2008, Beijing, China, May 2008 (acceptance rate: 36%).

31. A. Capone, <u>J. Elias</u>, F. MARTIGNON, **"Optimal Design of Service Overlay Networks"**, in Proceedings of the 4th International Workshop on QoS in Multiservice IP Networks (QoS-IP 2008), Venice, Italy, 13-15 February 2008.

32. <u>J. Elias</u>, F. MARTIGNON, A. Capone, "**An Efficient Dynamic Bandwidth Allocation Algorithm for Quality of Service Networks**", in Autonomic Networking 2006 (INTELLCOMM 2006), Paris, France, Sept. 27-29, 2006, also published in Springer Lecture Notes in Computer Science Volume #4195 (acceptance rate: 25%).

33. A. Capone, <u>J. Elias</u>, F. MARTIGNON, G. Pujolle, **"Dynamic Resource Allocation in Communication Networks"**, in Proceedings of Networking 2006, 15-19 May 2006, Coimbra, Portugal, also published in Springer Lecture Notes in Computer Science Volume # 3976, pp. 892-903 (acceptance rate: 20%).

34. A. Capone, <u>J. Elias</u>, F. MARTIGNON, G. Pujolle, **"Dynamic Resource Allocation in Quality of Service Networks"**, Springer Lecture Notes in Computer Science Volume #3883, May 2006.

35. A. Capone, F. MARTIGNON, **"Power-Controlled Directional Medium Access Control for Wireless Mesh Networks"**, Springer Lecture Notes in Computer Science Volume #3883, May 2006.

36. A. Capone, J. Elias, F. MARTIGNON, G. Pujolle, **"Distributed Dynamic Bandwidth Provisioning in Quality of Service Networks"**, in Proceedings of the 3rd EuroNGI Workshop on QoS and Traffic Control, ENS, Paris, France, 7-9 December, 2005.

37. W. Fawaz, F. MARTIGNON, K. Chen, G. Pujolle, **"A Novel Protection Scheme for QoS Aware WDM Networks"**, in Proceedings of the IEEE International Conference on Communications, ICC 2005, Seoul, Korea, May 2005.

38. W. Fawaz, F. MARTIGNON, K. Chen, G. Pujolle, **"A Priority-Aware Protection Technique for Quality of Service Enabled WDM Networks"**, in Proceedings of Networking 2005, Waterloo, Canada, May 2005.

39. W. Fawaz, F. MARTIGNON, K. Chen, G. Pujolle, **"Une Technique de Protection à Base de Priorité pour Les Réseaux Optiques WDM"**, in CFIP'05, 29 March – 1 April 2005, Bordeaux, France.

40. A. Capone, L. Fratta, F. MARTIGNON, **"On the Performance of Dynamic Online QoS Routing Schemes"**, in Proceedings of QoS-IP 2005, Catania, Italy, February 2005.

41. F. MARTIGNON, L. Fratta, **"Loss Differentiation Schemes for TCP over Wireless Networks"**, in Proceedings of QoS-IP 2005, Catania, Italy, February 2005.

42. F. MARTIGNON, **"Improving TCP Performance over Wireless Networks using Loss Differentiation Algorithms"**, in Proceedings of IEEE MWCN'04, Paris, October 2004.

43. A. Capone, F. MARTIGNON, **"Analysis of Dynamic Quality of Service Routing Algorithms"**, in Proceedings of the IEEE International Conference on Communications, ICC 2004, Paris, June 2004.

44. S. Bregni, D. Caratti, F. MARTIGNON, **"Enhanced Loss Differentiation Algorithms for Use in TCP Sources over Heterogeneous Wireless Networks"**, in IEEE Global Communications Conference, Globecom 2003, December 2003, San Francisco, Ca.

45. A. Capone, L. Fratta, F. MARTIGNON, **"Virtual Flow Deviation: Dynamic Routing of Bandwidth Guaranteed Connections"**, in Proceedings of the Second International Workshop on Quality of Service in Multiservice IP Networks, Milan, Italy, February 2003.

46. A. Capone, L. Fratta, F. MARTIGNON, **"Enhanced Bandwidth Estimation Algorithms in the TCP Congestion Control Scheme"**, in Proc. of IFIP Conference on Network Control and Engineering for QoS, Security and Mobility, NET-CON 2002, Paris, Oct. 2002.

47. F. MARTIGNON, A. Capone, **"TCP with Bandwidth Estimation over Wireless Networks"**, IEEE VTC Fall 2002, Vancouver, CA, September 2002.

48. A. Capone, F. MARTIGNON, "**Bandwidth Estimates in the TCP Congestion Control Scheme"**, Tyrrhenian International Workshop on Digital Communications 2001, Taormina, Italy, September 2001.

National Conferences

1. J. Elias, M. Mangili, F. MARTIGNON, A. Capone, **" Stochastic Optimization Models for Virtual Content Delivery Network Planning"**, 17th ROADEF conference (Société Française de Recherche Opérationnelle et Aide à la Décision), Compiegne, France, February 2016.

2. M. Mangili F. MARTIGNON, A. Capone, **"A Network-Planning Perspective for the Migration to Content-Centric Networking"**, 16th ROADEF conference (Société Française de Recherche Opérationnelle et Aide à la Décision), Marseille, France, February 2015.

3. S. Beccia, N. Le Nicolas, C. Salazar, M. Cesana, F. MARTIGNON, "**Tecniche di CSMA/CD nell'accesso ottico per servizi Triple-Play"**, in Fotonica 2005, 30 May – 1 June 2005, Trani, Italy.

Habilitation - Thesis

1. F. MARTIGNON, **"Efficient Design and Performance Analysis of Wireless Mesh and Overlay Networks"**, Habilitation à Diriger des Recherches, Université Pierre et Marie Curie (Paris 6), December 2010.
2. F. MARTIGNON, **"Enhanced Bandwidth Estimation and Loss Differentiation in the TCP Congestion Control Scheme"**, Ph.D. dissertation, Politecnico di Milano, 2005.

SERVICE ACTIVITIES

❑ *Area Editor* for the Elsevier "Computer Communications" Journal, "Journal of Networks" (Academy Publisher) and the "International Journal of Advances in Internet of Things".

❑ *Proposal Reviewer* for the:

1) MIUR PRIN 2015 program (Italian Government funds for investment in fundamental research), March-June 2016.
2) Qatar National Research Fund (QNRF), National Priorities Research Program (NPRP), February 2014, February 2015
3) "Futur & Ruptures" program, Institut Mines-Télécom and Fondation Télécom, 2013-2014
4) ANR Jeunes Chercheuses et Jeunes Chercheurs (JCJC) program, SIMI 2, March 2013
5) ANR Blanc International II, SIMI 3, May 2012
6) ANR Blanc International II, SIMI 2, June 2012
7) ANR Blanc International - Sciences de l'information, de la matière et de l'ingénierie : Matériels et logiciels pour les systèmes, les calculateurs, les communications, May 2010
8) ANRT-MESR CIFRE program, 2013
9) MIUR FIRB (Italian Government funds for investment in fundamental research) "Future in Research", March 2011.

❑ *Organizer* of the Workshop COmpetitive and COoperative Approaches for 5G networks, in the context of European Wireless 2016, Oulu, Finland, May 2016.

❑ *Publicity Chair* for the NetGCoop conference, October 2014.

❑ *Demo/Poster chair* of the ACM Q2SWinet 2009 conference, October 2009.

❑ *Member of the Program Committee* of

- **IEEE INFOCOM 2017**
- **IEEE INFOCOM 2016**
- **IEEE INFOCOM 2015**
- **IEEE INFOCOM 2014**
- **IEEE INFOCOM 2013**
- IEEE ICC 2017 SAC Symposium Cloud Communications and Networking Track
- WiOpt 2017 (15th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks)
- IEEE GLOBECOM 2016 - Global Communications Conference: Selected Areas in Communications: Cloud Networks
- The 3rd SIGCOMM ACM Conference on Information-Centric Networking (ICN 2016)
- IEEE Wireless Communications and Networking Conference (WCNC 2016, 2015, 2014, 2012)
- The 10th International Worskhop on Resource Allocation, Cooperation and Competition in Wireless Networks (RAWNET 2014)
- IEEE Vehicular Technology Conference (VTC 2013 Spring)

- The Asian Internet Engineering Conference (AINTEC 2014, 2013)
- 3rd International Workshop on 5G Architecture (5GArch), May 2016
- NTMS Workshop on Wireless Sensor Networks: Architectures, Deployments, and Trends (WSN-ADT 2016, 2015, 2014, 2012)
- IEEE/IFIP Wireless Days 2013, 2012, 2011, 2010 and 2009 conferences
- The International Conference on NETwork Games, COntrol and OPtimization (NETGCOOP 2012 and 2011)
- Conference on Decision and Game Theory for Security (GameSec 2011)
- ACM Q2SWinet 2010 and 2009 conferences
- IFIP "Wireless Sensor Networks: theory and practice" 2011 (WSN 2011)
- International Conference on Advanced Infocomm Technology (ICAIT 2012)
- The 8th International Conference on Broadband and Wireless Computing (2013)
- The 1st International Workshop on Green and Sustainable Networking and Computing (GSNC 2016), in conjunction with IEEE INFOCOM 2016
- The 5th IFIP Annual Mediterranean Ad Hoc Networking Workshop (Med-Hoc-Net 2006), Lipari, Sicily (Italy) - June 14-17, 2006.

❑ *Session Chair* at the "Flow and congestion control" session, Infocom 2013.

❑ *Session Chair* at the "Social networks" session, NetGCoop 2014.

❑ *Reviewer* for the following journals: IEEE Transactions on Mobile Computing, IEEE/ACM Transactions on Networking, IEEE Journal on Selected Areas in Communications, IEEE Transactions on Wireless Communications, IEEE Transactions on Communications, IEEE Communications Letters, IEEE Transactions on Industrial Electronics, IEEE Communications Surveys and Tutorials, Elsevier Computer Networks, Elsevier Ad Hoc Networks, Elsevier Performance Evaluation, Elsevier Journal of Systems Architecture, Elsevier Information Processing Letters, Wireless Networks, Wireless Communications and Mobile Computing, IET Communications, International Journal on Wireless and Optical Communications, European Transactions on Telecommunications, Elsevier Computers & Operations Research, Eurasip Journal on Wireless Communications and Networking, International Journal of Control, Automation and Systems, Telecommunications Systems, Wiley Security and Communication Networks, China Communications journal, Annals of Telecommunications.

❑ *Reviewer* for the following conferences: IEEE Infocom, Globecom, ICC, SECON, WCNC, VTC, WoWMoM, Med-Hoc-Net, Networking, ISCC, WTS, Wireless Days, INOC, Chinacom, NoF, WiMob, GameSec, NetGCooP.

❑ *Member of the Institut Universitaire de France (IUF) selection committee*, 2016.

❑ *Member of the PhD Examination Jury ("Rapporteur")* for the following Ph.D. thesis:
1) Léonce Mekinda, Télécom Paristech & Orange Labs, November 2016.
2) Natalya Rozhnova, Université Pierre et Marie Curie, May 2015.
3) Cristina Rottondi, Politecnico di Milano - Scuola Interpolitecnica di Dottorato, Nov. 2013
4) Yuhui Wang, Télécom SudParis, defended in May 2013.
5) Antimo Barbato, Politecnico di Milano - Scuola Interpolitecnica di Dottorato, March 2013.
6) Farsi Abdelhak, Université Paris 13, defended in December 2012.
7) Sinh Chung Nguyen, Université Pierre et Marie Curie, defended in May 2012.
8) Anis Jdidi, Télécom SudParis, defended in November 2011.

❏ *Member of the PhD Examination Jury ("Examinateur")* for the following Ph.D. thesis:

1) Amira Meharouec, Université Paris-Descartes, December 2016.

2) Claudio Imbrenda, Telecom ParisTech & Orange Labs, November 2016.

3) Andrea Araldo, Université Paris-Sud & Telecom ParisTech, October 2016

4) Claudio Imbrenda, Telecom ParisTech & Orange Labs, November 2016.

5) Vincenzo Sciancalepore (double Ph.D. between Politecnico di Milano – Universidad Carlos III Madrid), December 2015 (*Jury's President*).

6) Michele Mangili (double Ph.D. between Université Paris-Sud - Politecnico di Milano), December 2015.

7) Giuseppe Rossini, Telecom ParisTech, defended in January 2014.

8) Mariana Dirani, Université Paris 6, defended in November 2011 (*Jury's President*).

9) Mouhamad Ibrahim, INRIA Sophia Antipolis, defended in November 2008.

10) Jocelyne Elias, Université Paris 6, LIP6, defended in July 2006.

❏ *Member of the Selection Committee ("Comité de Sélection")* for the following positions at Paris-Sud University and Université Pierre et Marie Curie (UPMC):

1) Assistant Professor position, UPMC, Computer Science (May 2016).

2) Assistant Professor position, Computer Science (May 2014), *Jury's President*.

3) Assistant Professor position, Computer Science (April 2014).

4) Full Professor position, Computer Science (May 2013), also member of the *Committee Bureau*.

5) Assistant Professor position, Computer Science (April 2013).

COURSES TAUGHT

Lecturer at Paris-Sud University, University of Bergamo and Politecnico di Milano (Italy).
Since 2005, I taught more than 1350 hours as responsible for several networking and security courses, at the Ph.D. and Master level.

The following table reports all the courses I taught in the past years at Paris-Sud University, University of Bergamo and Politecnico di Milano, along with the course level and the number of hours.

Academic Year	Course	Level	University	Hours
2016/2017	Advanced Networks	M.Sc.	Paris-Sud University	30
	Computer Networks	M.Sc.	Paris-Sud University	36
2015/2016	Advanced Networks	M.Sc.	Paris-Sud University	30
	Computer Networks	M.Sc.	Paris-Sud University	36
2014/2015	Advanced Networks	M.Sc.	Paris-Sud University	30
	Computer Networks	M.Sc.	Paris-Sud University	36

2013/2014	Advanced Networks	M.Sc.	Paris-Sud University	30
	Computer Networks	M.Sc.	Paris-Sud University	36
2012/2013	Advanced Networks	M.Sc.	Paris-Sud University	30
	Advanced Networks	M.Sc.	Paris-Sud University	38
	Computer Networks	M.Sc.	Paris-Sud University	36
	Computer Networks	M.Sc.	Paris-Sud University	28
	Network Optimization	M.Sc.	Paris-Sud University	13.5
2011/2012	Security	M.Sc.	Paris-Sud University	22
	Advanced Networks	M.Sc.	Paris-Sud University	38
	Computer Networks	M.Sc.	Paris-Sud University	18
	Network Optimization	M.Sc.	Paris-Sud University	4.5
2010/2011	Advanced Topics in Computer Networks	Ph.D. course	University of Bergamo	10
	Telecommunication Networks	M.Sc.	University of Bergamo	60
2009/2010	Fundamentals of Telecommunication and Networks	B.Sc./M.Sc.	University of Bergamo	90
	Telecommunication Networks	M.Sc.	University of Bergamo	48
	Networking Laboratory	B.Sc.	University of Bergamo	24
2008/2009	Networking Laboratory	B.Sc.	University of Bergamo	24
	Computer Networks and Operating Systems	B.Sc./M.Sc.	University of Bergamo	24
	Telecommunication Networks	B.Sc./M.Sc.	University of Bergamo	48
	Internetworking with TCP-IP	B.Sc./M.Sc.	University of Bergamo	48
2007/2008	Networking Laboratory	B.Sc.	University of Bergamo	24
	Computer Networks and Operating Systems	B.Sc./M.Sc.	University of Bergamo	24
	Telecommunication Networks	M.Sc.	University of Bergamo	48
	Internetworking with TCP-IP	B.Sc./M.Sc.	University of Bergamo	48
2006/2007	Computer Networks and Operating Systems	B.Sc./M.Sc.	University of Bergamo	24
	Telecommunication Networks	M.Sc.	University of Bergamo	48
	Internetworking with TCP-IP	B.Sc./M.Sc.	University of Bergamo	48
2005/2006	Computer Networks and Operating Systems	B.Sc./M.Sc.	University of Bergamo	24
	Telecommunication Networks	M.Sc.	University of Bergamo	48
	Internetworking with TCP-IP	B.Sc./M.Sc.	University of Bergamo	48

2004/2005	Fundamentals of Networks	B.Sc.	Politecnico di Milano	20
	Telecommunication Networks	M.Sc.	University of Bergamo	48
	Internetworking with TCP-IP	B.Sc./M.Sc.	University of Bergamo	48
2003/2004	Fundamentals of Networks	B.Sc.	Politecnico di Milano	20
	Introduction to Network Simulation	M.Sc.	Politecnico di Milano	8
2002/2003	Fundamentals of Networks	B.Sc.	Politecnico di Milano	20
	Introduction to Network Simulation	M.Sc.	Politecnico di Milano	8
2001/2002	Fundamentals of Networks	B.Sc.	Politecnico di Milano	20
	Introduction to Network Simulation	M.Sc.	Politecnico di Milano	8
	Internetworking with TCP-IP	B.Sc.	Politecnico di Milano	30