

# Marcelo Yannuzzi Sanchez

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## Education:

- Ph.D in Computer Science (Cum Laude)
  - Department of Computer Architecture, Technical University of Catalonia, Barcelona, Spain.
- MSc in Computer Science
  - Department of Computer Architecture, Technical University of Catalonia, Barcelona, Spain.
- Electronic Engineer (six year program)
  - School of Engineering, University of the Republic, Uruguay.

## Professional Experience:

- **1993 - 2003:** A.N.TEL, National Telco, Uruguay ([www.antel.com.uy](http://www.antel.com.uy))
- **2003 - present:** Department of Computer Architecture, Technical University of Catalonia, Barcelona, Spain.  
Current position: Associate Professor.  
Participation in several IST European Union research projects, and Spanish National projects including:
  - **E-NEXT:** Emerging Networking Experiments and Technologies ([www.ist-e-next.net](http://www.ist-e-next.net)).
  - **EuQoS:** End-to-end Quality of Service support over heterogeneous networks ([www.euqos.org](http://www.euqos.org)).
  - **CONTENT:** Excellence in Content Distribution Network Research ([www.ist-content.eu](http://www.ist-content.eu))
  - **NOBEL:** Next generation Optical network for Broadband European Leadership ([www.ist-nobel.org](http://www.ist-nobel.org))

## Patents:

- M. D. Baru Fassio (Surrey, CA); M. Yannuzzi Sanchez (Barcelona, ES); G. Picun Miller (CerouxMousty, BE), "Intelligent air travel tag for asset selftracking," 256161, Series Code 11, U.S. Class at Publication: 235/385; 340/572.1; 340/825.49, USA, October 2005. Exploitation by DEFERO SYSTEMS

## Awards:

- **January 2001:** Program for the Development of Basic Sciences (PEDECIBA) award, Uruguay, to carry out a research tasks at the Department of Environmental Physics, RuprechtKarls Universität, Heidelberg, Germany.
- **October 2004:** Grant awarded by the School on Advanced Topics in Networking (SATIN), European Doctoral Research Foundation (EDRF), granted through the EU Network of Excellence: ENEXT.
- **May 2006 – December 2007:** Grant awarded by the School on Advanced Topics in Networking (SATIN), European Doctoral Research Foundation (EDRF), granted through the EU Network of Excellence: CONTENT.
- **December 2007:** Biography included in the 10th edition of Marquis *Who's Who in Science and Engineering*.
- **June 2008:** 2007 best paper award, School on Advanced Topics in Networking (SATIN), CONTENT (EU Network of Excellence).
- **October 2008:** Award from Cisco Research; gift granted by the Cisco Collaborative Research Initiative (CCRI) for the research proposal "Path-State Vectors". Cisco sponsors: Fred Baker, Russ White, and David Ward.

## Selected Publications: (full list available from <http://personals.ac.upc.edu/yannuzzi/>)

### • Journal Publications

- [1] M. Yannuzzi, X. Masip-Bruin, E. Marin-Tordera, J. Domingo-Pascual, A. Fonte, and E. Monteiro, "Improving the Performance of Route Control Middleboxes in a Competitive Environment," in *IEEE Network*, Vol. 22, no. 5, Sep./Oct. 2008.
- [2] M. Yannuzzi, X. Masip-Bruin, G. Fabrego, S. Sanchez-Lopez, A. Sprintson, and A. Orda, "'Toward a New Route Control Model for Multi-Domain Optical Networks,'" to appear in *IEEE Communications Magazine*, 46(6):104-111, June 2008.
- [3] X. Masip-Bruin, M. Yannuzzi, R. Serral-Gracià, J. Domingo-Pascual, J. Enriquez-Gabeiras, M. Callejo, M. Diaz, F. Racaru, G. Stea, E. Mingozzi, A. Beben, W. Burakowski, E. Monteiro, L. Cordeiro, "The EuQoS System: A Solution for QoS Routing in Heterogeneous Networks," in *IEEE Communications Magazine*, 45(2):96-103, February 2007.
- [4] M. Yannuzzi, X. Masip-Bruin, S. Sánchez-López, Jordi Domingo-Pascual, A. Orda, and A. Sprintson, "On the Challenges of Establishing Disjoint QoS IP/MPLS paths across multiple domains," in *IEEE Communications Magazine*, 44(12):60-66, December 2006.
- [5] X. Masip-Bruin, M. Yannuzzi, J. Domingo-Pascual, A. Fonte, M. Curado, E. Monteiro, F. Kuipers, P. Van Mieghem, S. Avallone, G. Ventre, P. Aranda-Gutiérrez, M. Hollick, R. Steinmetz, L. Iannone, K. Salamatian, "Research Challenges in QoS Routing," *Computer Communications, Elsevier*, vol. 29, no. 5, March 2006.
- [6] M. Yannuzzi, X. Masip, O. Bonaventure, "Open issues in interdomain routing: a survey," *IEEE Network*, 9(6):49-56, November/December 2005.

### • Book Chapters

- [1] A. Fonte, E. Monteiro, M. Yannuzzi, X. Masip-Bruin, and J. Domingo-Pascual, "A Framework for Cooperative Interdomain QoS Routing," *Springer Series: IFIP*, Vol. 196, pp. 91 – 104, ISBN: 0-387-30815-6, March 2006.

### • Conference Publications

- [1] X. Masip-Bruin and M. Yannuzzi, "Optical Multi-Domain Routing," to appear in Proceedings of OFC 2009, San Diego, California, USA, March 2009 (invited paper).
- [2] M. Yannuzzi, X. Masip-Bruin, R. Serral-Gracia, E. Marin-Tordera, A. Sprintson, and A. Orda, "Maximum Coverage at Minimum Cost for Multi-Domain IP/MPLS Networks," in Proceedings of *IEEE INFOCOM (Mini-Conference) 2008*, Phoenix, Arizona, USA, April 2008.
- [3] M. Yannuzzi, X. Masip-Bruin, G. Fabrego, S. Sanchez-Lopez, and J. Sole-Pareta, "OBGP+: A Simple Approach to Drastically Improve OBGP," in Proceedings of the *12th IFIP/IEEE Conference on Optical Network Design and Modelling (ONDM 2008)*, Vilanova i la Geltru, Catalonia, Spain, March 2008.
- [4] A. Sprintson, M. Yannuzzi, A. Orda, and X. Masip-Bruin, "Reliable Routing with QoS Guarantees for Multi-Domain IP/MPLS Networks," in Proceedings of *IEEE INFOCOM 2007*, Anchorage, Alaska, USA, May 2007.
- [5] M. Yannuzzi, X. Masip-Bruin, S. Sánchez-López, E. Marin Tordera, J. Solé-Pareta, and J. Domingo-Pascual, "Interdomain RWA based on stochastic estimation methods and adaptive filtering for optical networks," in Proceedings of *IEEE Globecom 2006*, San Francisco, USA, Nov./Dec. 2006.
- [6] M. Yannuzzi, A. Fonte, X. Masip-Bruin, E. Monteiro, S. Sánchez-López, M. Curado, and J. Domingo-Pascual, "On the Advantages of Cooperative and Social Smart Route Control," in Proceedings of *IEEE 15th International Conference on Computer Communications and Networks (ICCCN'06)*, Washington DC, USA, October 2006.
- [7] M. Yannuzzi, S. Sánchez, X. Masip, J. Solé, J. Domingo, "A combined intra-domain and inter-domain QoS routing model for optical networks," in Proceedings of the *9th Conference on Optical Network Design and Modeling (ONDM 2005)*, IEEE/IFIP, pp. 197-203, Milan, Italy, February 2005.
- [8] M. Yannuzzi, A. Fonte, X. Masip, E. Monteiro, S. Sánchez, M. Curado, J. Domingo, "A proposal for inter-domain QoS routing based on distributed overlay entities and QBGP," in Proceedings of *QoFIS'04*, LNCS 3266, pp. 257-267, Barcelona, Spain, October 2004.

## Program Committee Member:

- 2nd International Conference on High Performance Computing and Communications (HPCC) 2006.
- 12th International Conference on Optical Networking Design and Modelling (ONDM) 2008.
- 13th International Telecommunications Network Strategy and Planning Symposium, Networks 2008.
- 18th International Conference on Computer Communications and Networks (ICCCN 2009).

## Reviewer Experience in Networking:

IEEE Journal on Selected Areas in Communications (JSAC)  
Computer Networks Journal, Elsevier  
IEEE/ACM Trans. on Networking  
IEEE Infocom 2006, 2007, 2008, and 2009  
ACM CoNext 2005, 2008

IEEE PTL  
ECOC 2006  
HPCC 2006  
Networking 2005, 2006  
IEEE ICC 2004 and 2007

## Invited Talks and Research Stays:

- April 2008
  - Invited talk at Cisco Systems, San José, California, USA. Title of the talk: “New perspectives in Inter-domain routing”.  
Invited by Cisco research.
- December 2006
  - Seminar at the Department of Electrical and Computer Engineering, Texas A&M University, Texas, USA.  
Invited by Dr. Alex Sprintson. Title of the seminar “Interdomain Routing Control: Past, Present, and Future.”
- November – December 2004
  - Research stay at the Department of Computing Science and Engineering, Université catholique de Louvain (UCL), Louvain-la-Neuve, Belgium.  
Invited by Prof. Olivier Bonaventure.
- January 2001
  - Research stay at the Department of Environmental Physics, Ruprecht-Karls-Universität Heidelberg, Germany.  
Invited by Professor Dr. Ulrich Platt. Focus: Differential Optical Absorption Spectroscopy (DOAS).