

# Marco Polverini

## Curriculum Vitæ

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### PROFESSIONAL EXPERIENCE

Nov 13 – now **Postdoctoral Researcher**, *Department of Information, Electronic and Telecommunication Engineering (DIET)*, SAPIENZA University of Rome, ITALY.

Promoter Prof. Marco Listanti

Sep 10 – Jan 11 **Research Fellow**, *Department of Information, Electronic and Telecommunication Engineering (DIET)*, SAPIENZA University of Rome, ITALY.

Promoter Prof. Marco Listanti

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### RESEARCH EXPERIENCE

May 13 – Jul 13 I spent 3 months working at Florida International University (FIU), Miami - Florida

**Advisor** Prof. Shaolei Ren

**Focus** Simulation and performance evaluation of a Thermal-Aware Scheduling Algorithm of Batch Jobs in Geographically Distributed Data Centers.

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### EDUCATION

Nov 10 – Nov 13 **PhD in Information and Communication Engineering**, *Department of Information, Electronic and Telecommunication Engineering (DIET)*, SAPIENZA University of Rome, ITALY.

**Thesis** *Energy Saving Routing Strategies in IP Networks*

**Advisor** Prof. Marco Listanti

Jan 08 – Apr 10 **M.Sc. in Communication Engineering**, *SAPIENZA University of Rome, Italy.*

**Final grade** Full marks (110/110) and summa cum laude.

**Thesis** *Strategie di Routing Energy Saving per l'instradamento in reti IP di nuova generazione.*

**Advisor** Prof. Marco Listanti

Oct 04 – Dec 07 **B.Sc. in Communication Engineering**, *SAPIENZA University of Rome, Italy.*

**Final grade** (104/110).

**Thesis** *Strategie per il supporto della mobilità in reti IP di nuova generazione*

**Advisor** Prof. Marco Listanti

Sep 99 – Jul 04 **High School**, *ITIS "Leonardo Da Vinci", Viterbo, Italy.*

**Final grade** (85/100).

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## PUBLICATIONS

### Journals and Magazines

- [1] *An OSPF-Integrated Routing Strategy for QoS-Aware Energy Saving in IP Backbone Networks*, Network and Service Management, IEEE Transactions on , September 2012.
- [2] *Network pruning for energy saving in the Internet*, Computer Networks, July 2012.
- [3] *Sleep modes effectiveness in backbone networks with limited configurations*, Computer Networks, October 2013.
- [4] *Reducing power consumption in backbone IP networks through table lookup bypass*, Computer Networks, May 2014.
- [5] *Thermal-Aware Scheduling of Batch Jobs in Geographically Distributed Data Centers*, Cloud Computing, IEEE Transactions on, Jan.-March 2014.
- [6] *Freezing Forwarding Functionality to Make the Network Greener*, Computer Networks special issue on Green Communications, 2015
- [7] *Closing the Gap Among IP and Per-Flow Green Routing Solutions: The Tunneling Approach*, Selected Areas in Communications, IEEE Journal on, 2015
- [8] *The power of SDN to improve the estimation of the ISP traffic matrix through the flow spread concept*, Selected Areas in Communications, IEEE Journal on
- [9] *A Survey on Energy-Aware Design and Operation of Core Networks*, IEEE Communications Surveys and Tutorials

### Conference Proceeding

- [1] *An OSPF enhancement for energy saving in IP networks*, Computer Communications Workshops (INFOCOM WKSHPS), 2011 IEEE Conference on , 10-15 April 2011.
- [2] *Keeping the connectivity and saving the energy in the internet*, Computer Communications Workshops (INFOCOM WKSHPS), 2011 IEEE Conference on , 10-15 April 2011.
- [3] *Introducing routing standby in network nodes to improve energy savings techniques*, In Proceedings of the 3rd International Conference on Future Energy Systems: Where Energy, Computing and Communication Meet (e-Energy '12).
- [4] *Energy saving improvements in IP networks through table lookup bypass in router line cards*, Computing, Networking and Communications (ICNC), 2013 International Conference on, 28-31 Jan. 2013.
- [5] *Increasing device lifetime in backbone networks with sleep modes*, Software, Telecommunications and Computer Networks (SoftCOM), 2013 21st International Conference on, 18-20 Sept. 2013.
- [6] *CApacity provisioning and PRicing for cloud computing with energy capping*, In Allerton, 2013.
- [7] *A heuristic approach to solve the Table Lookup Bypass problem*, Digital Communications - Green ICT (TIWDC), 2013 24th Tyrrhenian International Workshop on, 23-25 Sept. 2013.
- [8] *Lifetime awareness in backbone networks with sleep modes*, Reliable Networks Design and Modeling (RNDM), 2015

- [9] *Implementing energy-aware algorithms in backbone networks: a transient analysis*, Communications (ICC), 2015 IEEE International Conference on, 142-148
- [10] *RUBEN: a Router emUlator for green BackbonE Networks*, Computer Communications Workshops (INFOCOM WKSHPS), 2015 IEEE Conference on
- [11] *Traffic matrix estimation enhanced by SDNs nodes in real network topology*, Computer Communications Workshops (INFOCOM WKSHPS), 2015 IEEE Conference on

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## LANGUAGES

**Italian** Mother Tongue

**English** Self-assessment (Common European Framework of Reference for Languages, CEFR)

Reading B2 (Independent user)

Listening B2 (Independent user)

Speaking B2 (Independent user)

Writing B2 (Independent user)

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## EXTRA-CURRICULAR ACTIVITIES

2011 **EC-ASP: ELSAGDATAMAT Certification for AMTEC Security Professional**, *Elsag Datamat s.p.a.*, Finmeccanica Group.

**Skill Covered** Basic routing network configuration, planning and design of security infrastructures, use of a management and deployment configuration system, installation and integration of SVPN infrastructures, troubleshooting activities.

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## AWARDS

2010 **Best Master Thesis Award**, *Rotary Club*.

2014 **Best PhD Thesis Award**, *Gruppo Telecomunicazioni e Tecnologie dell'Informazione*.

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## COMPUTER SKILLS

Operating System Microsoft Windows XP/07, GNU/Linux and others UNIX-like

Programming JAVA, C, PYTHON

Scientific Software MATLAB, AMPL, WIRESHARK, HADOOP, CPLEX, GLPK and LPsolve

Others Office and OpenOffice suite

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## SPARE TIME ACTIVITIES

Hobbies Sport: tennis, basket, volley

Interests Reading and music

“Treatment of personal informations is authorised according to the local privacy laws”.