

Europass curriculum vitae



Personal Information

Surname/First name Rossi Dario
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Email dario.rossi@enst.fr
Nationality Italian
Date of birth 27th of March, 1977
Military service Exempt

Research and Teaching

Dates starting October 2006
Occupation or position held Associate Professor, Computer Science and Networks Department (INFRES), ENST Télécom Paris
Referee Prof. Daniel Kofman
Name and address of employer École Nationale Supérieure des Télécommunications (ENST), 46 rue Barrault F-75634 Paris, France

Dates January 2002 – September 2006
Occupation or position held Researcher at the Electronic Department (DELEN) of Politecnico di Torino
Main activities and responsibilities Currently, my research activities in telecommunication networks concern three main areas. The first one is IP traffic measurement, where I am involved in the national project MIMOSA, which focuses on experimental measurement and traffic modeling, and in the European Network of Excellence on the Next Generation Internet (EuroNGI) project IPAM, on the integration of passive and active measurement platforms. Besides, it is worth mentioning the collaboration with industrial partners (Vodafone – Dr. M. Perino), concerning traffic identification techniques based on statistical inference. In the context of Wireless Sensor Networks (WSN) and of Inter-Vehicular Communications (IVC), I have created and supervise the Politecnico di Torino WSN/IVC laboratory and experimental measurement framework, funded by Intel, where both advanced teaching and research activities are carried on. The laboratory contributes to the Network of Excellence in Wireless Technology (NEWCOM), to national projects (MIUR PRIN PATTERN) and to exhibits (INFM-CNR Science Festival) as well, finally featuring several collaborations at both the international (M. Harris – Intel, Dr. S. Toumpis – Vienna Telecommunications Research Center ftw.) and national levels. Finally, concerning peer-2-peer networks, I'm involved on the EuroNGI project REDLARF, aimed at investigating random encounter based policies for the distribution of large files and FAMOUS, focused on fluid analytical models of autonomic systems.
Referee Prof. Marco Ajmone Marsan, Fabio Neri
Name and address of employer Politecnico di Torino – 24, C.so Duca degli Abruzzi, 10129, Torino, Italy

Dates August 2003 – August 2004
Occupation or position held Researcher at the Computer Science Division, University of California, Berkeley (CA, USA)
Main activities and responsibilities In the context of the emerging peer-to-peer networks, I collaborated with Prof. Ion Stoica at University of California, Berkeley (UCB) on the topic of lookup policies for Distributed Hash Tables (DHT). Part of my research activity focused on the development of high-performance algorithms that, without introducing any additional overhead, efficiently exploit the highly regular structure of DHT graph.
Referee Prof. Ion Stoica
Name and address of employer University of California Berkeley, Berkeley, CA94720-1776, USA

Dates Avril 2002 onward
Occupation or position held University Teacher
Main activities and responsibilities Teaching of several undergraduate networking classes and of the Wireless Sensor Networks seminar of the University Master in Wireless Systems and Related Technologies.

Referee	Prof. Andrea Bianco, Carla-Fabiana Chiasserini, Paolo Giaccone
Name and address of employer	Politecnico di Torino – 24, C.so Duca degli Abruzzi, 10129, Torino, Italy
Dates	September – December 2002
Occupation or position held	Researcher at Consorzio Nazionale Universitario per le Telecomunicazioni (CNIT)
Referee	Prof. Guido Albertengo
Name and address of employer	CNIT – 181/A, Parco Area della Scienza (Palazzina 3), 43100, Parma, Italy
Dates	October – December 2001
Occupation or position held	Independent Consultant
Name and address of employer	CSP S.c.a.r.l. – 216, C.so Unione Sovietica, 10100, Torino, Italy
Research Projects	
MIMOSA (2005–2007)	MIUR PRIN, Misure sperimentali e Modelli di traffico dati multiServizio a pacchetto (Experimental Measurements and Traffic Models of Multiservice Packet Networks) – Prof. A. Pattavina, Politecnico di Milano
FAMOUS (2005–2007)	MIUR PRIN, Fluid Analytical Models Of Autonomous Systems– Prof. A. Lombardo, Università di Catania
REDLARF (2006–2006)	EuroNGI JRA.S.15, Random Encounter Based Distribution of Large Files – Prof. I. Norros, VTT Technical Research Centre of Finland
IPAM (2005–2006)	EuroNGI JRA.S.13, Integration of Passive and Active Measurement Platforms – Prof. R. Valadas, IT Aveiro
EuroNGI (2004–2006)	Network of Excellence on the Next Generation Internet – Prof D. Kofman, ENST Telecom Paris
PATTERN (2003–2005)	MIUR PRIN, Protocols And cross-layer Techniques To achieve Energy-efficiency in Reconfigurable ad-hoc and sensor Networks – Prof. G. Mazzini, Università di Ferrara
TANGO (2001–2003)	MIUR FIRB, Traffic models and Algorithms for Next Generation IP networks Optimization – Prof. G. Prati, CNIT
Education and training	
Dates	April 2005
Title of qualification awarded	Dottore di Ricerca in Electronic and Telecommunication Engineering
Ph.D. Thesis Title	<i>Traffic at the Network Edge: Sniff, Analyze, Act</i>
Tutor	Prof. Marco Ajmone Marsan
Principal subjects covered	During the Ph.D. project I focused especially on IP traffic measurement and on the correspondent characterization of transport-layer protocols through the analysis of the real traffic traces. The gained skills range from the development of the software used to gather the data, to the statistical analysis of the dataset, to the presentation of the analysis results to the end-user (see http://tstat.tic.polito.it), and to the analytical modeling of the observed phenomena.
Name and type of organization	Ph.D. School (ScuDo) at the Politecnico di Torino – 24, C.so Duca degli Abruzzi, 10129, Torino, Italy – XVII Cycle of the Ph.D. Course on Electronic and Telecommunication Engineering.
Note	The <i>Dottore di Ricerca</i> degree is equivalent to the <i>Ph.D</i> degree.
Dates	2002
Title of qualification awarded	University-level teaching qualification (Cultore della Materia)
Name and type of organization	Politecnico di Torino – 24, C.so Duca degli Abruzzi, 10129, Torino, Italy
Dates	January 2002
Title of qualification awarded	Professional qualification to exercise the engineering profession (Esame di Stato)
Dates	November 2001
Title of qualification awarded	Laurea in Telecommunication Engineering
Master Thesis Title	<i>A Simulation Study of Web Traffic over DiffServ Networks</i>
Tutor	Prof. Marco Ajmone Marsan, Claudio C. Casetti, Marco G. Mellia
Principal subjects covered	Simulation, Quality of Service (QoS), TCP/IP Networking
Name and type of organization	Politecnico di Torino – 24, C.so Duca degli Abruzzi, 10129, Torino, Italy

Note

The *Laurea* degree is equivalent to the *M. Sc.* degree. The thesis, selected for publication on the International Archives, has been developed in collaboration with NEC Europe Ltd. – 36, Kurfürsten-Anlage, D-69115, Heidelberg, Germany.

Dates

1999 – 2000

Title of qualification awarded

Project Socrates–Erasmus: one year of courses at the french *Grand Ecole* ISEN

Principal subjects covered

Electronics, Electromagnetic Fields, Radar

Name and type of organization

Institut Superieur d'Électronique du Nord (ISEN) – 41, boulevard Vauban, 59046, Lille, France

Dates

1995

Title of qualification awarded

First Certificate in English

Name and type of organization

University of Cambridge, Cambridge, UK

Dates

1995

Title of qualification awarded

High School degree – Experimental Program on Computer Science and Physics

Name and type of organization

L.S.S. Alessandro Volta – 14, v. Juarra, 10100, Torino, Italy v. Juarra 14, 10100 Torino, Italie

Personal skills and competences

Mother tongue(s)

Italian

Other languages

French Eight years of public school studies. One-year stay in Lille (France) for study purposes.

English Five years of study at the British Churchill Center – 19/E, C.so Inghilterra, 10100, Torino, Italy. One-year stay in Berkeley, CA (USA) for work purposes.

Self-assessment
European level^(*)

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C1	Proficient user	C2	Proficient user	C2	Proficient user
C1	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user	C2	Proficient user

^(*) Common European Framework of Reference (CEF) level

French
English

Social skills

The different visited countries contributed in determining both my adaptability to multi-cultural environments as well as my communication skill; the teaching experience refined the latter.

Organisational skills

Good propensity to the project management and the group work, gained through the active participation to the EuroNGI Network of Excellence and to several inter-academic international projects. In a totally different context, during the Civil Service at the Confcooperative Torino, (15, C.so Francia, 10100, Torino, Italy), I was in care of the management of the Conscientious Objectors working for the several adherent co-op societies.

Computer skills

- **Operating Systems.** Linux and Unix (system administration notions), Windows (user-mode practice), TinyOS (embedded systems and sensor networks: development experience).
- **Software Developed.** Tstat (<http://tstat.tlc.polito.it>), Motestat (<http://www.tlc-networks.polito.it/wsn>), Diana (<http://www.tlc-networks.polito.it/diana>), WETMO (<http://www.tlc-networks.polito.it/wetmo>)
- **Programming and Scripting Languages.** C/C++ (knowledge of scientific libraries gsl, LAPACK, LSPACK), Perl, bash/csh/sh, nesC, Tcl, Tk, Awk, Pascal, Java, Php, CGI, Python.
- **Scientific Tools.** Experience in programming *custom* discrete event simulator, Network Simulator (ns-2) and TOSSIM (sensor networks); CPLEX for optimization problems; Octave or Matlab/Simulink for signal analysis and generic numerical problems; Mathematica or Maple for symbolic calculus; rudiments of statistical tools (R) and databases (*SQL).
- **Office Tools and Miscellanea.** T_EX, L^AT_EX, HTML, {Open,Star,Ms} Office, graphical (Gimp, Photoshop, Gnuplot, ...) and musical (Cakewalk, Cubase VST, ...) applications.

Artistic skills	I play stringed instruments since my childhood, but for passion and therefore without any reference; I've stained with Indian ink, tempera and charcoal countless sheets of medium-weighted, semi-rough paper; my hand guided the fountain pen in the writing of haiku, limerick and short experimental tales; finally, I still stubbornly take non-digital photographs and look original film versions.
Sports	Ski, Swimming, Tennis, Basket
Driving licences	Italian Driving License-B (Italy) and California Driving License (CA, USA)
Publications	<p>R. Fracchia, M. Meo, D. Rossi, "VANETs: To Beacon or Not To Beacon ?", <i>In Procs. of the Autonet'06 Workshop of IEEE Globecom'06</i>, San Francisco, CA, Nov'06</p> <p>L. Muscariello, M. Meo, M. Mellia and D. Rossi, "Passive Measurement of TCP Anomalies," <i>In Procs. of IEEE International Conference of Communication (ICC'06)</i>, Istanbul, Turkey, Jun. 2006</p> <p>D. Rossi and M. Mellia, "Real-Time TCP/IP Analysis with Common Hardware," <i>In Procs. of International Conference of Communication (ICC'06)</i>, Istanbul, Turkey, Jun, 2006</p> <p>R. Fracchia, M. Meo and D. Rossi, "On the Impact of Traffic Models on Inter-vehicular Broadcast Communications" <i>In Procs of IEEE MedHocNet 2006</i>, Lipari, Italy, Jun. 2006</p> <p>D. Rossi, C. Casetti and C. F. Chiasserini, "An Empirical Study on Communication Performances of Stationary and Mobile Sensors", <i>In Sensor Network and Configuration: Fundamentals, Techniques, Platforms, and Experiment</i> N. P. Mahalik Editor, Springer-Verlag, Germany, Jun. 2006.</p> <p>R. Fracchia, M. Meo, and D. Rossi, "Avoiding broadcast storms in inter-vehicular warning delivery services," <i>In Procs. of the 6th International Workshop on Applications and Services in Wireless Networks (ASWN'06)</i>, Berlin, Apr. 2006</p> <p>R. Fracchia, M. Meo, and D. Rossi, "Knowing Vehicle Location HELPs Avoiding Broadcast Packets Storm," <i>In Procs. of the 3rd IEEE International Workshop on Mobile Peer-to-Peer Computing (MP2P'06)</i>, Pisa, Italy, Mar. 2006</p> <p>D. Rossi and M. Mellia, "Persistent Gbps Link Monitoring with Tstat," <i>2nd EuroNGI Workshop on New Trends in Modelling, Quantitative Methods and Measurements (WPIA.8.1)</i>, Aveiro, Portugal, Nov. 2005</p> <p>D. Rossi and I. Stoica, "Gambling Heuristics on a Chord Ring," <i>In Procs. of IEEE Globecom'05</i>, St Luis, MO, Nov. 2005</p> <p>D. Rossi, "Traffic at the Network Edge: Sniff, Analyze, Act." PhD Thesis, Tutor M. Ajmone Marsan, Apr. 2005</p> <p>D. Rossi, L. Muscariello, M. Mellia, "On the properties of TCP Flow Arrival Process," <i>In Procs. of IEEE International Conference of Communication (ICC'04), QoS and Performance Modeling Symposium</i>, Paris, Jun. 2004.</p> <p>D. Rossi, L. Muscariello, M. Mellia, "The TCP Arrival Process", <i>COST279'04 TD/13</i>, Paris, Jun. 2004</p> <p>D. Rossi, P. Giaccone, L. Muscariello, M. Mellia, "The performance of Switch under Real Traffic," <i>In Procs. of IEEE Workshop on High Performance Switching and Routing, (HPSR'04)</i>, Phoenix, AZ, Apr. 2004.</p> <p>D. Rossi, C. Casetti, M. Mellia, "User Patience and the Web: a Hands-on Investigation," <i>In Procs. of IEEE Globecom'03</i>, San Francisco, CA, Dec. 2003</p> <p>D. Rossi, C. Casetti, M. Mellia, "A Simulation Study of Web Traffic over DiffServ Networks", <i>In Procs. of IEEE Globecom'02</i>, Taipei, TW, Nov. 2002</p> <p>D. Rossi, "A Simulation Study of Web Traffic over DiffServ Networks," <i>Master Thesis</i>, International Archives, Nov. 2001</p>