

Europass Curriculum Vitae

Personal information

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Date of birth 25/06/1978



Profile

I am an associate professor at the Department of Environmental Sciences, Informatics and Statistics at the Ca' Foscari university of Venice. Previously I was an assistant professor at the Department of Information Engineering and Computer Science (DISI) of the University of Trento (Italy). I received a Master in Computer Science and a Doctoral degree at the University of Florence respectively in 2004 and 2010, I am an IEEE member, an ACM member and a member of the Association for Progressive Communication (APC). My research focuses on the protocols, the privacy, the applications and the social aspects related to distributed networks, with particular interest to large mesh networks, such as Community Networks. I contributed to start a line of research on Community Networks in the Advanced Networked Systems (ANS) group of the DISI which evolved in various publications and at least three financed projects, with a strong focus on interdisciplinarity. I was the work-package technical coordinator of the netCommons project, an H2020 project coordinated by DISI.

My achievements include scientific publications and involvement in both research and industrial projects. I have publications with co-authors coming from 10 companies, 17 universities and 3 research centers for a total of 11 different countries. I have been teaching network security, network performance, and coding at various degrees, I co-advised more than 40 BS and MS students and three Ph.D. students.

For the period 2011-2014 I was appointed of a Marie Curie Co-fund grant for the 'PAF-FPE' project dealing with privacy for pervasive ad-hoc and mesh networks. In 2014 I received an award as a starting grant for the RiseApp project. In 2017 I received the FFABR grant from the Italian Ministry. I participated to the technical program committees of several international conferences (IEEE INFOCOM, IEEE ICDCS, IFIP Networking, IEEE Globecom, IEEE ICC, etc.) and as a reviewer for international conferences and journals. I am in the editorial board of two Wiley journals.

My expertise includes the development of solutions for real-world, large-scale wireless networks with special attention on protocols, security and privacy. I worked on mesh networks, sensor networks for IoT, named-data-networks, and peer-to-peer networks.

I am also an entrepreneur: I am an associate of Tracking4Fun, a start-up whose mission is to produce affordable tracking devices for non-professional athletes¹.

¹See www.tracking4fun.com

Detailed Work Experience

2019- Employer	Associate Professor DAIS, Ca' Foscari university of Venice
2016-(2019) Main activities	Assistant Professor Work-Package technical coordinator for the whole project and coordinator of WP3 for the netCommons H2020 project
Employer	D.I.S.I. University of Trento
2015- Main activities	Post-doc researcher Research activity in the EIT-ICT Lab project Programmable Networks, and UniTn project 'Strengthening Wireless Community Networks'
Employer	D.I.S.I. University of Trento
2011-2014 Main activities	Post-doc researcher Winner of an EU Marie Curie Co-fund grant for the PAF-FPE project on privacy for pervasive networks
Employer	D.I.S.I. University of Trento
2010 Main activities	Research fellowship - Internship at Selex Communications Involved in the Industry-driven research project ESSOR, European Secure Software Radio Programme. I was stably in the research laboratories of Selex Communications, one of the largest Italian companies on telecommunications and networks (7400 employees in 2011, now merged in Leonardo Finmeccanica).
Employer	D.E.T. University of Florence - TiCom (University/Industry research consortium including Selex)
2007-2009 Main activities	Ph.D student. Graduated April 2010 During my Ph.D. I was involved in the Italian PRIN research project PROFILES on the security of p2p networks, and in the industrial research projects "Study, simulation and implementation [...] of routing protocols for Wireless Mesh Networks", and "Analysis and Implementation of a AAA server for multi-function Tetra-WiMax network", in cooperation with Selex Communications.
Employer	D.E.T. and D.S.I (Department of Computer Science), University of Florence
2004-2006 Main activities	Consultant and Research fellowship Involved in C.R.U.I.S.E. EU-financed Network of Excellence on Wireless Sensor Networks. Lead technical researcher for the project "Security for IEEE 802.11 Mesh networks" in cooperation with Telecom Italia Laboratories.
Employer	D.E.T. University of Florence.
Research Projects Involvement	
IoF 2020	I was the PI of the Internet on Fire project, financed under the H2020 Fed4Fire+ FIRE call for for experimental research projects. IoF dealt with improving the convergence speed of the BGP routing protocol (received grant €20.000)
POPROW, 2017	Technical Project Manager of the POPROW project, financed under the H2020 WISHFUL FIRE call for for experimental research projects. POPROW experimented Pop-Routing in the real-world test-bed provided by the WISHFUL project (received grant, €50.000)
netCommons, 2016-2019	The ANS group of the DISI is the coordinator for the netCommons project, a multi-disciplinary research project financed by H2020 that focuses on Community Networks under the lens of three different disciplines: computer science, law and sociology. I am the Work-Packages technical coordinator for the project and the coordinator for WP3 (received grant, \simeq €650.000)

Strengthening Wireless Community Networks, 2015-2016	The University of Trento finances research projects on cross-layer topics on wide research themes which foresee joint interdisciplinary initiatives. This project focuses on an interdisciplinary research on Community Networks that mixes computer science and Law. It is a follow-up of my previous activities on Community Networks and previous interdisciplinary projects (received grant, \simeq €100.000)
EIT Programmable Networks, 2015	The Programmable Networks project is financed for the year 2015 by the EIT-ICT Labs. I participated to the cooperation with Alcatel Lucent for the design and test of innovative software-defined-networking techniques on virtualized networks
NoCatCommunity project, 2014	The project, financed by the CARITRO foundation is a multi-disciplinary effort to study wireless Community Networks under the technical, social and legal point of view ² . I contributed to the technical research of the project (received grant, €30.000)
OSPS/CONFINE project, 2013	CONFINE is a FIRE FP7 project dealing with wireless Community Networks made of thousands of nodes ³ , UniTn has entered the project with the OSPS sub-project through the first open-call. I analyzed network properties of such large mesh networks, with focus on privacy and robustness (received grant, €50.000)
University of Trento, 2011-2014	Responsible for the PAF-FPE project, a Marie-Curie Co-Fund project for the design and development of a privacy-aware content filtering platform focused on future pervasive wireless networks (received grant, \simeq €150.000)
ESSOR, with Selex Communications, 2010	ESSOR was a 200M Euro European Defence Agency project aimed at realizing a network protocol for a clustered military mesh network. It involved 6 European partners, I was the main designer and coordinator of the development of the integrated simulation platform for the whole project
TWNNet, with Selex Communications: 2009	TWNNet: the project was aimed at the design of a mixed Tetra-Wifi mesh network, expanding the capability of Tetra-DMO with multi-hop wireless features. I was the designer of the security features of the network
Selex Communications, 2007-2008	Several projects including: innovative metrics for AODV routing protocols, protocols for network formation in mesh-networks and analysis, design and development of a security architecture for a WiMax infrastructure network, with the integration on the freeRadius AAA server. I was the main analyst and developer on embedded GNU/Linux platforms
Italian Dept. of research 2007-2008	PROFILES (PeeR-to-peer beyOnd FILE Sharing) was a two-year Italian research project (MIUR financed). The project addressed the study of peer-to-peer communication systems. I was involved in the analysis of the security of the Kademlia/Kad protocol
Siemens (Munich), 2007	The research project was aimed at the development of a simulation environment to evaluate the capacity of IEEE 802.11 network in specific situation of traffic load. I was involved as a simulator designer and developer
CRUISE NoE 2006	The CRUISE Network of Excellence focused on the communication and application aspects of wireless sensor networking, including all related and supportive technologies. My role was to design security protocols for wireless sensor networks
Telecom Italia, 2004-2005	Two research projects aimed at the design and implementation of an authentication method that optimizes secure hand off in ad-hoc/mesh/manet networks, based on token exchanges. I was the main protocol designer and developer
Teaching Activities	
2021-	Teacher of the Introduction to coding and data management course in the Digital Management Bachelor, Ca'Foscari (30 hrs)
2021-	Teacher of the Computer Science course in the Physical Engineering Bachelor, Ca'Foscari (48 hrs)
2021-	Teacher of the Simulation and Network Performance course in the Computer Science Bachelor, Ca'Foscari (30 hrs)
2019-	Teacher of the Lab of Computer Security course in the Digital Management Bachelor, Ca'Foscari (30 hrs)
2020	Teacher of the Lab of Software Project Development course in the Digital Management Bachelor, Ca'Foscari (30hrs)
2020	Teacher of the Introduction to Coding course in Minor in Data Science, Ca'Foscari

²See the web page of the project <http://goldstein.disi.unitn.it/caritro/>

³See the web page of the project <http://osps.disi.unitn.it/>

2019	Teacher of the course of Advanced Networks at the Bachelor of Computer Science, DISI, University of Trento (48 hrs, starting Feb. 2019). I also am part of the exam commission.
2018	Teacher of the Ph.D. Course in Large Scale Distributed Wireless Networking at the DISI, University of Trento (20 hrs, Fall 2018).
2016-on	I am part of the Ph.D. Doctoral School Committee of the DISI, as such, for six times I was part of the commissions for students' qualifying exams (an intermediate exam after one year of Ph.D.).
2017-ongoing	Co-supervisor of Luca Baldesi and Lorenzo Ghiro, Ph.D. students at the DISI
2017-on	Teacher of the course in Wireless Mesh and Vehicular Networks at the Master of Computer Science, DISI, University of Trento (16 hrs). I also am part of the exam commission.
2017	Teacher of the Ph.D. Course in Large Scale Distributed Wireless Networking at the DISI, University of Florence (16 hrs).
2016, 2017	Mentor for the Google Summer of Code project that implements Pop-Routing in OLSRv1 and OLSRv2 ⁴
2015	Teacher of the "Privacy, Security and Trust" course in the Post-master's programme Smart Community Design and Management (SCoDeM) organized by the DISI (13 hrs)
2005-Now	I co-advised more than 40 BS and MS students, two of them were appointed with the "Innovating Information Security" prize from the Italian Association for Information Security (CLUSIT). For at least 20 of them I participated to the Thesis Commission.
2010	I was part of the Ph.D commission for the thesis of Pablo Neira Ayuso in the Computer Science department of the University of Sevilla
2005,2011,2012,2017	Teacher of the professional training course "Security of Wireless Networks" organized by the Center for Informatics Services of the University of Florence (CSIAF), for a total of 76 hrs. The course was aimed to the University technical staff and ICT professionals.
2005-2010	Throughout my career in the University of Florence I held seminars on security for the various courses: Security and Network Management, Telematics Laboratory, Telecommunication networks. In the first course I did 10 hours per year, and I was also part of the exam commission.
2008	Teacher in the Post-secondary, Higher Technical Education and Training course (IFTS) for the "Network Security" organized by the Province of Pistoia and co-financed by the EU (40 hrs).
2006	Invited teacher of the first school organized by the European network of Excellence C.R.U.I.S.E. giving a seminar on security in Wireless Sensor Networks at the Aalborg University (Denmark)
Prizes	
2014	I received a personal award of €6000 for a research proposal named RiseApp, from the CHEST FP7 Project. RiseApp goal was to build a mobile application to share and publish media contents in situations in which human rights are at risk (such as protests and riots) and Internet connectivity is filtered, censored or temporarily blocked.
 Organization of Scientific Meetings	
2016	I was in the program committee of the IEEE WONS workshop, where I organized a special session on Community Networks ⁵
2016	I was in the scientific committee of the interdisciplinary workshop "Local and Community Networks" organized by the University of Trento ⁶

⁴See <http://blog.freifunk.net/2016/implementing-poprouting>

⁵See <http://2016.wons-conference.org/>

⁶See <http://webmagazine.unitn.it/evento/giurisprudenza/10495/local-and-community-networks>

Invited Talks, Seminars, Panels

- 1/2019 Invited seminar at the Computer Science Department, University of Rome “La Sapienza” with a presentation entitled: “Community Networks and beyond: a socio-technical approach to study networks”
- 12/2018 Invited seminar at the Computer Science Department of the University of Venice, with a presentation entitled “Community Networks: a theme for Networking Research”
- 2018 I held an invited seminar to the UNESCO on the theme of Community Networks. The outcome of this presentation, together with the efforts from the netCommons project was the modification of the Internet Universality Indicators, the new indicators used by UNESCO to evaluate state policies for telecommunications, which now take into consideration Community Networks⁷.
- 2017 I held an invited seminar to the European Parliament on the theme of Community Networks. The outcome of this presentation, together with the efforts from the net-Commons project was the modification of the Telecom Package, the new framework for Telecommunications in Europe, which now explicitly consider Community Networks⁸.
- 2017 I participated as an invited panelist to the RightsCon conference session on “Sustainable Connectivity”
- 2016 I moderated the session “Challenges in carrying it into practice” in the Barcelona Workshop on community networking infrastructures⁹
- 2014,2017 Twice invited as a speaker to Dagsstuhl seminars: Nov. 2014 “Towards an Affordable Internet Access for Everyone: The Quest for Enabling Universal Service Commitment (Dagstuhl Seminar 14471)” and Nov 2017 “Internet of People (Dagstuhl Seminar 17412)”
- 2010 Invited seminar at the Computer Science University of Seville (Spain), on the theme of distributed network security

Institutional Roles

- 2021-2020- Coordinator of the Data Monitoring Board of the University of Venice
- 2020- Member of the Quality Assurance Committee of the Bachelor in Digital Management, University of Venice
- 2020- Member of the Committee of the Bachelor in Digital Management, University of Venice
- 2020- Member of the Faculty Committee, DAIS, University of Venice
- 2020- Member of the Ph.D. Doctoral School Committee of the Computer Science Doctoral School of the University of Venice
- 2020 Coordinator of the Minor in Computer Science, university of Venice
- 2017 Member of the Ph.D commission for the thesis of Emmanoil Dimogerakis in the Computer Science department of the Politecnical University of Barcelona (Spain)
- 2016-2019 Member of the Faculty Committee, DISI, University of Trento
- 2016-2019 Member of the Ph.D. Doctoral School Committee of the ICT Doctoral School of the University of Trento
- 2010 Member of the Ph.D commission for the thesis of Pablo Neira Ayuso in the Computer Science department of the University of Seville (Spain)

Commission of Trust

Editorial Board

I am in the editorial board of Wiley “Transactions on Emerging Telecommunications Technologies” and “Security and Privacy” journal (launched in 2018), between 2016 and 2018 I was in the Editorial Board of Wiley “Wireless Communications and Mobile Computing”

⁷See the <https://netcommons.eu/?q=news/netcommons-unesco> for details

⁸See the <https://netcommons.eu/?q=content/netcommons-guidelines-telecom-policy-makers> for details

⁹See <http://netcommons.eu/?q=content/workshop-community-networking-infrastructures>

TPC	TPC in several conferences including top conferences in the networking area, such as: IEEE INFOCOM (2019, 2020), IEEE ICDCS (2018), IFIP Networking (2017, 2018, 2020); and several other relevant conferences, such as: CNBuB (2014-2016), IEEE Globecom (2008, 2009, 2016, 2018, 2019, 2020), IEEE ICC (2007, 2009, 2011), IEEE/IFIP WONS (2012, 2016), ACM DIYNNet (2015), IEEE COMNESAT (2018), GECON (2015, 2019).
Reviewer	Reviewer in several conferences and journals, including IEEE INFOCOM, IFIP Networking, IEEE Globecom, IEEE ICC; IEEE Transactions on Networking, Wireless Communications, Communications Magazine, and "Access"; Elsevier Ad Hoc Networks, Mobile Networks & applications, and Future Generation Computer Systems; Springer International Journal of Information Security and "Computing", Wiley Security and Communication Networks and International Journal of Communication Systems.
Major Collaborations	
Technical Universities	In the netCommons project I have active cooperation with the group of Leandro Navarro from the Universitat Politècnica de Barcelona (UPC), and with the group of Iordanis Koutsopoulos of the Athens University of Economics and Business. I had previous cooperation with Pablo Neira (lead developer of the netfilter module in the Linux kernel and researcher at the University of Seville, Spain). In 2020 I collaborated with the Northeastern University of Boston, with the group of Tommaso Melodia.
Interdisciplinary	I co-authored a paper on COVID contact tracing apps with Valeria Cagno, a Biologist at the university of Geneva, I cooperated with Paolo Magaudda from the Social Science department of the University of Padua, I was involved in two projects with Roberto Caso from the Law department of the University of Trento. In netCommons I daily cooperate with Melanie Dulong de Rosnay (CNRS), and Christian Fuchs (Univ. of Westminster), two widely recognized researchers in Law and Social Science
Industry	I am co-author of 4 among patents and requests with researchers from Telecom Italia Lab and Selex Communication (now Leonardo Finmeccanica). In 2010 I spent a one year internship in Selex, coordinating the development of a network simulator for the European Defence Agency project ESSOR, involving companies like SAAB, RAD-MOR, Thales (with whom I had daily interactions and meetings). I authored a 2016 paper with researchers from Bell-Labs, Google Inc., and Telefonica Research as a product of an EIT (European Institute of Technology) Project. I had activities with small enterprises like Phoops SRL that produced the discovery of a security vulnerability of the Wireless Protected Set-up Wi-Fi protocol (see publication at INFOCOM Conference, 2013). In 2018 I co-authored a paper with a researcher from Here Technologies (once Navteq and Nokia Maps).
Entrepreneurship	
	I am an associate of Tracking4Fun ¹⁰ , a start-up based in Florence (Italy) whose mission is to create affordable devices to track athletes using wireless localization. The company uses cutting-edge technology to provide high precision localization for outdoor and indoor sports. I am contributing to the design of advanced localisation techniques for large-scale scenarios leveraging my expertise on distributed wireless networks.
Education and training	
2007-2010	Ph.D at the University of Florence, graduated with a thesis entitled "Security protocols for distributed networks"
1997-2004	Faculty of Computer Science Engineering in Florence. Master Thesis: "Analysis and Development of security protocols for mesh networks". Graduated with 109/110. The thesis is among the 5 finalists of the Marconi Junior Prize for the best 2004 Italian thesis in ICT sector
2000-2001	Spent a semester at the Escuela Superior de Ingenieros de Sevilla as Erasmus student.
-1997	Scientific studies at Leonardo da Vinci institute, Florence.

¹⁰See <http://www.tracking4fun.com/>

Personal skills

Mother tongue

Other language(s)

Self-assessment
European level^(*)

English

Spanish

Italian

English, Spanish

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

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

Social skills and
competences

Participation and presentation of talks to various national and international conferences, both academic (such as flagship IEEE conferences, see publications) or industrial (such as Italian InfoSecurity conference). I write for on-line and printed newspapers, I have been active in politics and cooperated with the Municipality of Florence for the realization of laws on digital commons

Organisational skills and
competences

As a student, I organized various University-founded conferences on network security and open source with more than 100 attendees

Computer skills and
competences

Expert in System administration with focus on GNU/Linux and embedded systems (OpenWRT OS). Expert in mesh-networks and wireless routing. Expert in wireless and wired network security and software development (IEEE 802.11, IEEE 802.16 and experience with Wireless Sensor Networks). Expert of peer-to-peer software networks and distributed wireless mesh networks. Programming languages: C, C++, Python, basic skills in PHP, Java

List of Publications

————— Indexed Journals (ISI/Scopus) —————

Journal L. Maccari and V. Cagno, "Do we need a contact tracing app?" *Computer Communications*, vol. 166, pp. 9–18, 2021

Journal L. Maccari, L. Ghio, A. Guerrieri, A. Montresor, and R. Lo Cigno, "Exact distributed load centrality computation: Algorithms, convergence, and applications to dv routing," *IEEE Transactions on Parallel and Distributed Systems*, vol. 31, pp. 1693–1706, July 2020

Journal L. Maccari, "Detecting and Mitigating Points of Failure in Community Networks: a Graph-based Approach," *IEEE Transactions on Computational Social Systems*, vol. 9, Feb. 2019

Journal L. Maccari and R. Lo Cigno, "Improving Routing Convergence with Centrality: Theory and Implementation of Pop-Routing," *IEEE Transactions on Networking*, vol. 26, pp. 2216–2229, Oct. 2018

Journal L. Maccari, M. Maischberger, and R. Lo Cigno, "Where have all the MPRs gone? On the Optimal Selection of Multi-Point Relays," *Elsevier Ad Hoc Network*, vol. 77, pp. 69–83, Aug. 2018

Journal L. Maccari and A. Passerini, "A Big Data and Machine Learning Approach for Network Monitoring and Network Security," *Wiley Security and Privacy*, vol. 2, 2018

Journal L. Maccari, N. Facchi, L. Baldesi, and R. Lo Cigno, "Optimized P2P Streaming for Wireless distributed Networks," *Elsevier Journal of Pervasive and Mobile Computing*, vol. 42, pp. 335–350, Dec. 2017

Journal L. Baldesi, L. Maccari, and R. Lo Cigno, "On the Use of Eigenvector Centrality for Cooperative Streaming," *IEEE Communications Letters*, vol. 21, pp. 1953–1956, Sept. 2017

Journal L. Baldesi, L. Maccari, and R. Lo Cigno, "Improving P2P streaming in wireless community networks," *Computer Networks*, vol. 93, Part 2, pp. 389–403, 2015

Journal L. Maccari and R. Lo Cigno, "A week in the life of three large wireless community networks," *Ad Hoc Networks*, vol. 24, Part B, pp. 175–190, 2015

Journal	L. Maccari, R. Fantacci, T. Pecorella, G. Ghattini, and F. Chiti, "Protecting mobile agents communications in pervasive networks with a trusted distributed mediator for id-based RSA," Wiley Security and Communication Networks, vol. 7, pp. 1887–1899, 2014
Journal	L. Maccari and R. Lo Cigno, "Betweenness estimation in OLSR-based multi-hop networks for distributed filtering," Elsevier Journal of Computer and System Sciences special issue on Wireless Networks Intrusion, vol. 80, no. 3, pp. 670–685, 2014
Journal	L. Maccari and R. Lo Cigno, "Waterwall: a cooperative, distributed firewall for wireless mesh networks," SpringerOpen/EURASIP Journal on Wireless Communications and Networking, vol. 2013, no. 225, p. 225
Journal	R. Fantacci, P. Neira Ayuso, L. Maccari, and R. Martínez Gasca, "Efficient packet filtering in wireless ad-hoc networks," IEEE Communication Magazine, vol. 46, no. 2, pp. 104–110, 2008
Journal	F. Chiti, R. Fantacci, L. Maccari, D. Marabissi, and D. Tarchi, "A broadband wireless communication system for emergency management," IEEE Wireless Communication Magazine, vol. 15, no. 3, pp. 8–14, 2008
Journal	A. Mitseva, P. Todorova, R. Agüero, A. Garcia Armada, C. Panayiotou, A. Timm-Giel, L. Maccari, and N. Prasad, "Cruise research activities towards ubiquitous intelligent sensing environments," IEEE Wireless Communication Magazine, vol. 15, no. 4, pp. 52–60, 2008
Journal	R. Fantacci, F. Chiti, and L. Maccari, "Fast distributed bi-directional authentication for wireless sensor networks," Wiley journal on Security and Communication Networks, vol. 1, no. 17-24, 2008
Journal	R. Fantacci, L. Maccari, T. Pecorella, and F. Frosali, "Analysis of secure handover for ieee 802.1x-based wireless ad hoc networks," IEEE Wireless Communication Magazine, vol. 14, no. 5, pp. 21–29, 2007
————— Interdisciplinary Publications —————	
Journal	F. Giovanella, S. Crabu, L. Maccari, and P. Magaudda, "Hackivism in community networks: the italian case of ninux.org," The Journal of Peer Production, 2016
Journal	S. Crabu, F. Giovanella, L. Maccari, and P. Magaudda, "A transdisciplinary gaze on wireless community networks," TECNOSCIENZA: Italian Journal of Science and Technology Studies, vol. 6, no. 2, 2015
————— Patents —————	
Patent	L. Costa, G. Fregulia, F. Federico, R. Fantacci, L. Maccari, and T. Pecorella, "Short authentication procedure in wireless data communications networks," US Patent US Patent US8 621 201B2, 2008., 2008
Patent	L. Costa, G. Fregulia, F. Federico, R. Fantacci, L. Maccari, and T. Pecorella, "Short authentication procedure in wireless data communications networks," EU Patent WO2 007 000 179 (PCT), EP1 900 170 (EU), 2008
Patent request	N. Privitera, C. Armani, L. Adamo, L. Maccari, and D. Marabissi, "Two-level routing communication method for a manet network, network node and mobile network implementing this communication method," EU Patent WO2 014 167 550 (EPO Patent Request), 2014
Patent request	M. Gianluca, L. Piccinocchi, M. Rosi, and L. Maccari, "Modified ad-hoc on-demand distance-vector routing protocol," EU Patent Request to EPO WO2009144756 (PCT), 2008
————— Book Chapters —————	
Book Chapter	L. Maccari, "Decentralized, multi-hop networks: Are they really different from the internet?" in Towards an Affordable Internet Access for Everyone: The Quest for Enabling Universal Service Commitment (Report from Dagstuhl Seminar 14471). Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, 2015, vol. 4
Book Chapter	L. Maccari and T. Bailoni, "Wireless community networks: una liberation technology per l'internet del futuro." in Reti di libertà. Wireless Community Networks: un'analisi interdisciplinare. Università degli studi di Trento, 2015, vol. 9
Book Chapter	L. Adamo, R. Fantacci, and L. Maccari, "Wimax networking security," in WiMAX Security and Quality of Service: Providing an End to End Explanation. Wiley, 2009
Book Chapter	F. Chiti, R. Fantacci, L. Maccari, D. Marabissi, and D. Tarchi, "The role of wimax technology in distributed wide area monitoring applications," in WiMAX Evolution: Emerging Technologies and Applications. Wiley, 2008

Conferences

- Conference L. Ghiro, F. Restuccia, S. D’Oro, T. Basagni, Stefano Melodia, L. Maccari, and R. Lo Cigno, “A blockchain definition to clarify its role for the internet of things,” in Mediterranean Communication and Computer Networking Conference (MedComNet), June 2021
- Conference G. Gemmi and L. Maccari, “Npart+: Improving wireless network topology generators with data from the real world,” in 2020 Mediterranean Communication and Computer Networking Conference (MedComNet), Arona, Italy, June 2020
- Conference G. Gemmi, R. Lo Cigno, and L. Maccari, “Poster: Truenets, a topology generator for realistic network analysis,” in 2020 IFIP Networking Conference, Paris, France, June 2020
- Conference M. Milani, M. Nesler, M. Segata, L. Baldesi, L. Maccari, and R. Lo Cigno, “Improving bgp convergence with fed4fire+ experiments,” in IEEE Conference on Computer Communications (INFOCOM) Workshops, 2020
- Conference L. Baldesi, L. Maccari, and R. Lo Cigno, “On the properties of infective flooding in low-duty-cycle networks,” in IEEE Wireless On-demand Network systems and Services Conference (WONS), 2019, Wengen, Switzerland, Jan 2019
- Conference L. Maccari, L. Ghiro, A. Guerrieri, A. Montresor, and R. Lo Cigno, “On the Distributed Computation of Load Centrality and Its Application to DV Routing,” in IEEE International Conference on Computer Communications (INFOCOM), Honolulu (USA), April 2018
- Conference L. Maccari, M. Karaliopoulos, I. Koutsopoulos, L. Navarro, F. Freitag, and R. Lo Cigno, “5G and the Internet of EveryOne: Motivation, Enablers, and Research Agenda,” in European Conference on Networks and Communications (EUCNC), Ljubljana, Slovenia, June 2018
- Conference M. Segata, N. Facchi, L. Maccari, G. Gemmi, and R. Lo Cigno, “Centrality-based Route Recovery in Wireless Mesh Networks,” in IEEE International Conference on Communications (ICC), Kansas City, (USA), May 2018
- Conference M. Segata, N. Facchi, L. Maccari, and R. Lo Cigno, “RoRoute: Tools to Experiment with Routing Protocol Robustness in WMN,” in IEEE/IFIP Wireless On-demand Network systems and Services Conference, Isola 2000, France, February 2018
- Conference L. Ghiro, L. Maccari, and R. Lo Cigno, “Proof of networking: Can blockchains boost the next generation of distributed networks? (short paper),” in IEEE/IFIP Wireless On-demand Network systems and Services Conference, Isola 2000, France, February 2018
- Conference D. Kirchner, R. Ferdous, R. Lo Cigno, L. Maccari, M. Gallo, D. Perino, and L. Saino, “Augustus: a CCN router for programmable networks,” in ACM Conference on Information-Centric Networking (ICN), Kyoto (Japan), Sept. 2016
- Conference L. Maccari, Q. Nguyen, and R. Lo Cigno, “On the Computation of Centrality Metrics for Network Security in Mesh Networks,” in IEEE Global Communications Conference (Globecom), Washington DC (USA), Dec. 2016
- Conference L. Baldesi, L. Maccari, and R. Lo Cigno, “Optimized Cooperative Streaming in Wireless Mesh Networks,” in IFIP Networking Conference (NETWORKING), Vienna, (Austria), April 2016
- Conference L. Maccari, “On the Technical and Social Structure of Community Networks,” in IFIP Internet of People Workshop, IoP, Vienna (Austria), April 2016
- Conference L. Baldesi and L. Maccari, “NePA TesT: Network Protocol and Application Testing Toolchain for Community Networks,” in Conference on Wireless On-demand Network Systems and Services (WONS), Cortina D’Ampezzo (Italy), January 2016
- Conference L. Maccari and R. Lo Cigno, “Pop-Routing: Centrality-based Tuning of Control Messages for Faster Route Convergence,” in IEEE International Conference on Computer Communications (INFOCOM), San Francisco (USA), April 2016
- Conference L. Cerdá-Alabern, A. Neumann, and L. Maccari, “Experimental evaluation of BMX6 routing metrics in a 802.11n wireless-community mesh network,” in International Workshop on Community Networks and Bottom-up-Broadband (CNBuB), Rome (Italy), Aug. 2015

Conference	L. Maccari, L. Baldesi, R. Lo Cigno, J. Forconi, and A. Caiazza, "Live video streaming for community networks, experimenting with peerstreamer on the Ninux community," in Workshop on Do-it-yourself Networking: an Interdisciplinary Approach (co-located with ACM Mobisys), Florence (Italy), May 2015
Conference	L. Baldesi, L. Maccari, and R. Lo Cigno, "Improving p2p streaming in community-lab through local strategies," in International Workshop on Community Networks and Bottom-up-Broadband (CNBuB), Larnaca (Cyprus), Oct. 2014
Conference	L. Baldesi, L. Maccari, and R. Lo Cigno, "Live p2p streaming in communitylab: Experience and insights," in Mediterranean Ad Hoc Networking Workshop (MED-HOC-NET), Piran (Slovenia), June 2014
Conference	L. Maccari and R. Lo Cigno, "Urban wireless community networks: Challenges and solutions for smart city communications." in ACM International Workshop on Wireless and Mobile Technologies for Smart Cities (WiMobCity), Philadelphia (USA), 2014
Conference	L. Maccari, "An analysis of the Ninux wireless community network," in International Workshop on Community Networks and Bottom-up-Broadband (CNBuB), Lyon, (France), Oct. 2013
Conference	L. Maccari and M. Rosi, "Re-breaking wireless protected setup," in Poster to the IEEE Conference on Computer Communications (Infocom), Turin (Italy), April 2013
Conference	L. Maccari, "A collaborative firewall for wireless ad-hoc social networks," in Proceedings of the International Conference on Security and Cryptography, Rome (Italy), April 2012
Conference	L. Maccari and R. Lo Cigno, "How to reduce and stabilize MPR sets in OLSR networks," in IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob), Barcelona (Spain), Oct. 2012
Conference	L. Maccari and R. Lo Cigno, "Privacy in the pervasive era: A distributed firewall approach," in Wireless On-demand Network Systems and Services (WONS), poster session, Courmayeur (Italy), Dec. 2012
Conference	L. Bencini, R. Fantacci, and L. Maccari, "Analytical model for performance analysis of IEEE 802.11 DCF mechanism in multi-radio wireless networks," in IEEE International Conference on Communications (ICC), Cape Town (South Africa), May 2010
Conference	R. Fantacci, L. Maccari, M. Rosi, L. Chisci, L. M. Aiello, and M. Milanesio, "Avoiding eclipse attacks on kad/kademlia: An identity based approach," in IEEE International Conference on Communications, (ICC), Dresden (Germany), June 2009
Conference	A. Barbieri, R. Fantacci, and L. Maccari, "A novel interface selection scheme for multi-interface wireless mesh networks." in IEEE International Conference on Communications, (ICC), Dresden (Germany), June 2009
Conference	P. Neira Ayuso, L. Maccari, L. Lefevre, and R. Martínez Gasca, "Stateful firewalling for wireless mesh networks," in IEEE International Conference on New Technologies, Mobility and Security, (NTMS), Nov 2008
Conference	L. Maccari, M. A. Marchitti, N. Prasad, R. Fantacci, and L. Mainardi, "Lightweight, distributed access control for wireless sensor networks supporting mobility," in IEEE International Conference on Communications, (ICC), Beijing (China), May 2008
Conference	F. Chiti, R. Fantacci, L. Maccari, K. Murray, D. Pesch, S. Tomic, R. Aguero, J. Perez Solano, T. Suihko, and N. Prasad, "The approach of european network of excellence CRUISE to heterogeneous wireless sensor networks design and integration," in International Conference on Sensor Technologies and Applications, 2007
Conference	L. Maccari, R. Fantacci, P. Neira Ayuso, and R. Gasca Martínez, "Mesh network firewalling with Bloom filters," in IEEE International Conference on Communications (ICC), 2007
Conference	L. Maccari, M. Paoli, and R. Fantacci, "Security analysis of IEEE 802.16," in IEEE International Conference on Communications, (ICC), Valencia (Spain), Oct. 2007
Conference	M. Rosi, L. Maccari, and R. Fantacci, "S.t.r.e.s.s.: Stress testing and reverse engineering for system security," in IEEE International Conference on Communications, (ICC), Glasgow (Scotland), June 2007
Conference	L. Maccari, R. Fantacci, T. Pecorella, and F. Frosali, "Secure, fast handoff techniques for 802.1x based wireless network," in IEEE International Conference on Communications (ICC), Istanbul (Turkey), June 2006

Conference

R. Fantacci, L. Maccari, T. Pecorella, and F. Frosali, "A secure and performant token-based authentication for infrastructure and mesh 802.1 x networks," in IEEE Conference on Computer Communications (Infocom), poster session, Barcelona (Spain), April 2006

Additional information

Artistic and Other skills

I was involved in the free-software and open source movement since the early 2000s. I am among the founder of the Ninux.org network in Florence and of the free-software lab of the University of Florence (lilik.it). I organised and chaired conferences on social and technological themes, I have worked with the Major Deputy of Florence to propose the switch of the public IT infrastructure to open source and Creative Commons.