

Francesco Lo Presti
Università di Roma "Tor Vergara", Viale del Politecnico 1, 00133 Roma
+39-0672597725
Sex Male   Date of birth December 28 <sup>th</sup> , 1967   Nationality Italian
Full professor
ING-INF/05 Sistemi di Elaborazione delle Informazioni,
My general research interests are in the fields of distributed computing systems and computer networks. Within this general framework, he has recently focused his research activity on: (i) cross-layer optimization of cognitive radio networks; (ii) reinforcement learning based routing strategies for underwater networks; (ii) Reinforcement Learning based QoS driven runtime adaptation of service-oriented systems; (iii) resource provisioning and pricing in Cloud systems; (iv) mobile Cloud computing, (v) scheduling and optimal deployment of data stream applications in Fog computing. He has published more than 80 papers in peer-reviewed international journals, international conference, symposium and workshop proceedings. He is co-author of two international patents on underwater networking.  He has participated in several R&D European Projects in the ICT area including EP6 IST. Secure International Mobile Platforms Leading
including FP6 IST Secure, Internetable, Mobile Platforms Leading Citizens Towards Simplicity (Simplicity) (2004-2005), FP7 ICT Monitoring and Measurement in the Next Generation Technologies (Moment) (2008-2010) FP7 ICT Sensor Network for Dynamic and Cognitive Radio Access (Sendora) (2008-2009) and the FP7 ICT Distributed computing, storage and radio resource allocation over cooperative femtocells (TROPIC) (2012-2015) and the FP7 ICT Sensing, monitoring and actuating on the UNderwater world through a federated Research InfraStructure Extending the Future Internet (SUNRISE) (2015-2016).
■ H-index: ■ 28
<ul> <li>No. publications:</li> <li>No. citations:</li> <li>2773</li> </ul>
<ul><li>No. citations:</li><li>Energy transition:</li></ul>
Digital transition:  Cloud-edge systems, QoS Optimization Autonomic Systems, Reinforcement Learning  Bio-pharma & health:

# EDUCATION AND TRAINING

1997/07/15	PhD in Computer Engineering
1993/05/20	Laurea degree in Electrical Engineering, with honors ("Lode e Dignità di Stampa")



WORK EXPERIENCE	
since 2021/12/30	Full Professor – SSD ING-INF/05 Sistemi di Elaborazione delle Informazioni
	Università di Roma "Tor Vergata"
since 2007/01/02 to 2021/12/29	Associate Professor – SSD ING-INF/05 Sistemi di Elaborazione delle Informazioni
	Università di Roma "Tor Vergata"
since 2005/11/01 to 2007/01/01	Assistant Professor – SSD ING-INF/05 Sistemi di Elaborazione delle Informazioni
	Università di Roma "Tor Vergata"
since 2001/11/01 to 2005/10/31	Assistant Professor – SSD INF/01 Informatica
	Università dell'Aquila
since 1998/10/01 to 2001/09/07	Senior Post Doc Research Associate
	Computer Science Department – University of Massachusetts at Amherst (MA), USA
since 1997/04/07 to 1998/30/09	Coaudiutore tenico
	Banca d'Italia, Servizio Elaborazioni e Sistemi Informativi
since 1997/04/02 to 1996/12/01	Ingegnere Elettronico
	Telecom Italia, Divisione Rete

## MAIN ROLES AND RESPONSIBILITIES

From 2018/11/01 To 2021/10/30	<ul> <li>Director of the undergraduate and graduate Computer Engineering</li> <li>Degree at the University of Rome Tor Vergata</li> </ul>
From 2020/11/01 To 2016/10/30	<ul> <li>Member of the Scientific Committee of the Distance Learning School - University of Roma Tor Vergata</li> </ul>
From 2015/06/01	<ul> <li>Head of the University of Rome Tor Vergata Smart City CINI National Lab unit</li> </ul>
From 2015/05/21 To 2022/01/23	<ul> <li>Member of the Civil and Computer Engineering Department Research</li> <li>Committee - University of Roma Tor Vergata</li> </ul>
From 2012/11/01	<ul> <li>Member of the Computer Science, Control and Goeinformation PhD program - University of Roma Tor Vergata</li> </ul>
From 2007/11/01 To 2012/10/30	<ul> <li>Member of the Computer Science and Contro PhD program - University of Roma Tor Vergata</li> </ul>

### SERVICE TO NATIONAL



## AND INTERNATIONAL COMMUNITY

From 2001/11/01	<ul> <li>Program Chair</li> <li>ACPROSS 2017, International Workshop on Autonomous Control for Performance and Reliability Trade-offs in Internet of Services, 22 April 2017, L'Aquila.</li> <li>BWA 2014, 10th Broadband Wireless Access Workshop, 12 December 2014, Austin (TX), USA.</li> <li>InfQ 2014, Informatica Quantitativa 2014,6-7 October 2014, Turin.</li> </ul>
From 2001/11/01	<ul> <li>Technical Program Committee Member for more than 50 international conferences and workshops:         <ul> <li>IEEE INFOCOM - IEEE Conference on Computer Communications (2009-2021)</li> <li>ACM MSWIM - ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (2004-2021)</li> <li>IEEE CloudNet IEEE International Conference on Cloud Networking (2017-2018)</li> <li>IEEE CCNC IEEE Consumer Communications and Networking Conference (2016-2017)</li> <li>Auto-DaSP 2017, International Workshop on Autonomic Solutions for Parallel and Distributed Data Stream Processing (2017)</li> <li>Performance 2014: The 32nd International Symposium on Computer Performance, Modeling, Measurements and Evaluation (2014)</li> <li>ACM CoNEXT 2011, 7th International Conference on emerging Networking Experiments and Technologies (2011)</li> <li>International Workshop on Advanced Architectures and Algorithms for Internet Delivery and Applications (IDEA) (2005-2006)</li> <li>Internet Measurement Conference (IMC) (2004)</li> <li>Performance 2002, The 20th International Symposium on Computer Performance, Modeling, Measurements and Evaluation (2002)</li> </ul> </li> </ul>
From 2001/11/01	Reviewer – Review paper for major conference and journals,

#### **TEACHING EXPERIENCE**

From 2005/11/01	<ul> <li>Università di Roma "Tor Vergata" – Corso di Laurea in Ingegneria Informatica</li> <li>Ingegneria di Internet e Web (2012-2021)</li> <li>Calcolatori Elettronici (2018-2021)</li> <li>Advanced Networking and Internet Modeling (2012-2017)</li> <li>Reti di Calcolatori e Ingegneria del Web (2008-2012)</li> <li>Fondamenti di Informatica (2006-2011)</li> <li>Architettura dei Calcolatori (2005.2007)</li> </ul>
From 2001/11/01 To 2005/10/30	Università dell'Aquila – Corso di Laurea in Informatica Computazione Distribuita e Concorrente (2002-2005) Laboratorio di Programmazione (2001-2004) Modelli di Traffico per Reti Telemariche (2002-2003) Architettura degli Elaboratori (2001-2002)

MAIN RESEARCH EXPERIENCE



2017-2019	•	"ROSE - Research on Open SRv6 Ecosystem" 1 and 2, CISCO, CO-PI, 190k.
2015-2017	•	COST action "IC1304: Autonomous Control for a Reliable Internet of Services (ACROSS)", Management Committee Member
From 2002	•	Research experience – Research on Cognitive and Underwater Sensor Network, SENSESLab and spin off WSENSE, Università di Roma "La Sapienza" (9 papers co-authored, 5 EU funded projects, 2 Patents)
From 1995 to 2006	•	Research experience – Research on modelling, optimization and I nference of Computer Network performance, University of Massachusetts at Amherst (MA), USA (20 papers co-authored, 2 US funded projects)

### OTHER RELEVANT EXPERIENCES

2015-2016	-	Research Collaborator – EU Project 7FP ICT - SUNRISE - Sensing, monitoring and actuating on the UNderwater world through a federated Research InfraStructure Extending the Future Internet
2014	•	Research Collaborator - EU Project GN3Plus DREAMER – Distributed REsilient sdn Architecture Meeting carrier grade Requirements
2012-2015	-	Research Collaborator - EU Project 7FP ICT TROPIC - Distributed computing, storage and radio resource allocation over cooperative femtocells
2010	•	Research Collaborator - EU Project 7FP SENSEI - Integrating the Physical with the Digital World of the Network of the Future
2008-2010	•	Research Collaborator - EU Project 7FP STREP MOMENT - Monitoring and Measurement in the Next Generation Technologies.
2008-2009	•	Research Collaborator - EU Project 7FP ICT SENDORA - Sensor Network for Dynamic and Cognitive Radio Access
2004-2005	•	Research Collaborator - EU Project IST Simplicity - Secure, Internetable, Mobile Platforms Leading Citizens Towards Simplicity
2003	•	Research Collaborator - EU Project ITEA POLLENS - Platform for Open Light Legible and Efficient Network Services
2002-2004		Visiting Researcher – Computing Science Department of the University of Massachusetts at Amherst (MA), NSF Project "Scalable Quality of Service Control for the Next Generation Internet: Fundamental Challenges and Effective Solutions"

#### HONOURS, AWARDS, MEMBERSHIPS, OTHER QUALIFICATIONS

2021		IEEE Senior Member
2020-2021		Top 100.000 worldwide scientist - Listed in the Updated science-wide author databases of standardized citation indicators" published by BIOS Biology, October 2020
2017	•	IEEE Member



2016	Honorable Mention for the paper "Optimal operator placement for distributed stream processing applications", V. Cardellini, V. Grassi, F. Lo Presti, M. Nardelli, presentato, 10 <sup>th</sup> ACM International Conference on Distributed and Event-Based Systems (DEBS 2016), Irvine, CA, USA, Jube 2016.
2015	Best Poster Award for the poster "Distributed QoS-Aware Scheduling in Storm", V. Cardellini, V. Grassi, F. Lo Presti, M. Nardelli, al 9th ACM International Conference on Distributed Event-Based Systems (DEBS 2015), Oslo, Norway, June 2015.
2012	ACM Sigmetrics Test of Time Award – for the paper "Network Tomography on General Topologies", T. Bu, N.G. Duffield, F. Lo Presti, D. Towsley, Proceedings of the 2002 ACM SIGMETRICS international conference on Measurement and modeling of computer systems, Marina del Rey, CA, 15-19 June 2002. Award motivation: "This paper is a pioneering work in network tomography and it presented novel and formal approaches to perform tomography on networks under general setting, from which various performance, e.g., delay, packet lost,etc., can be estimated.".
2011	Best Paper Award for the paper "A New Approach to QoS Driven Service Selection in Service Oriented Architectures", V. Cardellini, V. Di Valerio, V. Grassi, S. Iannucci, F. Lo Presti, SOSE 2011: IEEE 6th International Symposium on Service-Oriented System Engineering, Irving (CA), December 12th-14th 2011.

### ADDITIONAL INFORMATION

#### **Publications**

- [1] V. Cardellini, V. Di Valerio, F. Lo Presti, "Game-theoretic pricing and provisioning strategies in cloud systems", *IEEE Transactions on Service Computing*, Vol. 13, No. 1, pp. 86-98, January 2020.
- [2] V. Cardellini, V. De Nitto Person, V. Di Valerio, F. Facchinei, V. Grassi, F. Lo Presti, V. Piccialli, "A game-theoretic approach to computation offloading in mobile cloud computing". *Mathematical Programming*, Vol. 157, No. 2, pp. 421-449, June 2016.
- [3] V. Cardellini, E. Casalicchio, V. Grassi, S. Iannucci, F. Lo Presti, R. Mirandola, "MOSES: a Framework for QoS Driven Runtime Adaptation of Service-oriented Systems", *IEEE Transactions on Software Engineering*, Vol. 38, No. 5, pp. 1138-1159, October 2012
- [4] N.G. Duffield, F. Lo Presti, V.Paxson, D. Towsley, "Network Loss Tomography Using Striped Unicast Probes", *IEEE/ACM Transactions on Networking*, Vol. 14, No. 4, pp. 697-710, August 2006.
- [5] Y. Liu, F. Lo Presti, V. Misra, D. Towsley, Y. Gu, "Scalable Fluid Models and Simulations for Large-Scale IP Networks", ACM Transactions on Modeling and Computer Simulation, Vol. 14, No. 3, pp. 305-324, July 2004.

<sup>®</sup>According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Roma, Febraury 3<sup>rd</sup> 2022

Frances la Phi