

Curriculum Vitae

Sergio Palazzo

Professor

University of Catania, Italy

Biography

Sergio Palazzo was born in [REDACTED]

He received his degree in electrical engineering from the University of Catania in 1977.

Until 1981, he was at ITALTEL, Milano, where he was involved in the design of operating systems for electronic exchanges. He then joined CREI, which is the center of the Politecnico di Milano for research on computer networks. Since 1987 he has been at the University of Catania, where is now a Full Professor of Telecommunications Networks. In 1994, he spent the summer at the International Computer Science Institute (ICSI), Berkeley, as a Senior Visitor. He is a recipient of the 2003 Visiting Erskine Fellowship by the University of Canterbury, Christchurch, New Zealand.

Since 1992, he has been serving on the Technical Program Committee of INFOCOM, the IEEE Conference on Computer Communications. He has been the General Chair of some ACM conferences, including MobiHoc 2006, MobiOpp 2010, MobiHoc 2019, and currently is a member of the MobiHoc Steering Committee. He has also been the TPC Co-Chair of the IFIP Networking 2011, IWCMC 2013, and European Wireless 2014 conferences. Moreover, in the recent past, he has been the Program Co-Chair of the 2005 International Tyrrhenian Workshop on Digital Communications, focused on "Distributed Cooperative Laboratories: Networking, Instrumentation, and Measurements", the General Vice Chair of the ACM MobiCom 2001 Conference, and the General Chair of the 2001 International Tyrrhenian Workshop on Digital Communications, focused on "Evolutionary Trends of the Internet".

In the recent past, he also was an Editor of *IEEE Wireless Communications Magazine* (formerly *IEEE Personal Communications Magazine*), *IEEE/ACM Transactions on Networking*, *IEEE Transactions on Mobile Computing, Computer Networks, Ad Hoc Networks*, and *Wireless Communications and Mobile Computing*. He was a Guest Editor of Special Issues in the *IEEE Journal of Selected Areas in Communications* ("Intelligent Techniques in High-Speed Networks"), in the *IEEE Personal Communications Magazine* ("Adapting to Network and Client Variability in Wireless Networks"), in the *Computer Networks* journal ("Broadband Satellite Systems: a Networking Perspective"), in the *EURASIP Journal on Wireless Communications and Networking* ("Ad Hoc Networks: Cross-Layer Issues", and "Opportunistic and Delay Tolerant Networks"). He also was the recipient of the 2002 Best Editor Award for the *Computer Networks* journal.

Since 2012 to 2018, he has been the President of the GTTI (Gruppo Telecomunicazioni e Tecnologie dell'Informazione), which is the Association which gathers all Professors and Researchers in the Telecommunication Area in Italy.

His current research interests are in modelling, optimization, and control of wireless networks, with applications to cognitive and cooperative networking, SDN, and sensor networks.

Editorial and Organization Work

Conferences

Technical Program Co-Chair of: - *European Wireless 2014*, Barcelona, Spain, May 14-16, 2014.

Technical Program Co-Chair of: - *IWCMC 2013*, Cagliari, Italy, July 1-5, 2013.

Technical Program Co-Chair of: - *IFIP Networking 2011*, Valencia, Spain, May 9-13, 2011.

General Co-Chair of: - *ACM MobiHoc 2019 (Twentieth ACM International Symposium on Mobile Ad Hoc Networking and Computing)*, Catania, Italy, July 2-5, 2019.

General Co-Chair of: - *Med-Hoc-Net 2018 (17th Annual Mediterranean Ad Hoc Networking Workshop)*, Capri, Italy, June 20-22, 2018.

General Co-Chair of: - *European Wireless 2018*, Catania, Italy, May 2-4, 2018.

General Chair of: - *ACM/SIGMOBILE MobiOpp 2010 (Second International Workshop on Mobile Opportunistic Networking)*, Pisa, Italy, February 23-24, 2010.

General Chair of: - *ACM MobiHoc 2006 (Seventh ACM International Symposium on Mobile Ad Hoc Networking and Computing)*, Florence, Italy, May 22-25, 2006.

Program Co-Chair of: - *IEEE IWDC 2005 (2005 Tyrrhenian Int. Workshop on Digital Communications) on "Distributed Cooperative Laboratories: Networking, Instrumentation, and Measurements"*, Sorrento, Italy, July 4-6, 2005.

General Vice Chair of: - *ACM MobiCom 2001 (7th Annual International Conference on Mobile Computing and Networking)*, Rome, Italy, July 16-21, 2001.

General Chair of: - *IEEE IWDC 2001 (2001 Tyrrhenian Int. Workshop on Digital Communications) on "Evolutionary Trends of the Internet"*, Taormina, Italy, September 17-20, 2001.

Technical Program Committee Member of: - *IEEE INFOCOM*, 1992-1998, 2001, 2005-2014.

Journals

Member of the Technical Editorial Board of:

- *IEEE Wireless Communications* (formerly *IEEE Personal Communications*), 1997-2002.
- *Computer Networks*, Elsevier, 2001-2006 (recipient of the 2002 **Best Editor Award**)
- *Wireless Communications and Mobile Computing*, Wiley, 2001-2006.
- *Ad Hoc Networks*, Elsevier, 2003 - present.
- *IEEE/ACM Transactions on Networking*, 2003 - 2009.
- *IEEE Transactions on Mobile Computing*, 2004 - 2007.

Guest Editor of Special Issues in:

- *IEEE Personal Communications* ("Adapting to Network and Client Variability in Wireless Networks", with R. LaMaire and M. Naghshineh), Vol. 5, No. 4, August 1998.
- *IEEE Journal on Selected Areas in Communications* ("Intelligent Techniques in High Speed Networks", with C. Douligeris, E. Gelenbe, and I. Habib), Vol. 18, No. 2, February 2000.
- *Computer Networks* ("Broadband Satellite Networks: A Networking Perspective", with G. Morabito and C. Rosenberg), Vol. 39, No. 1, May 2002.
- *EURASIP Journal on Wireless Communications and Networking* ("Ad Hoc Networks: Cross-Layer Issues"), Vol. 2005, No. 5, December 2005.
- *EURASIP Journal on Wireless Communications and Networking* ("Opportunistic and Delay Tolerant Networks"), Vol. 2011, No. 1, February 2011.

Recent Publications (2012-2021)

Journals

F. Busacca, G. Faraci, C. Grasso, S. Palazzo, G. Schembra: Designing a multi-layer edge-computing platform for energy-efficient and delay-aware offloading in vehicular networks, *Computer Networks*, Vol. 198, n. 4, October 2021.

A. C. Anadiotis, L. Galluccio, S. Milardo, G. Morabito, S. Palazzo: SD-WISE: A Software-Defined Wireless SEnsor network, *Computer Networks*, Vol. 159, n. 4, August 2019.

S. D'Oro, M. A. Marotta, C. B. Both, L. DaSilva, S. Palazzo: Power-Efficient Resource Allocation in C-RANs with SINR Constraints and Deadlines, *IEEE Transactions on Vehicular Technology*, Vol. 68, n. 6, June 2019.

S. D'Oro, F. Restuccia, T. Melodia, S. Palazzo: Low-Complexity Distributed Radio Access Network Slicing: Algorithms and Experimental Results, *IEEE/ACM Transactions on Networking*, Vol. 26, n. 6, December 2018.

S. D'Oro, A. Zappone, S. Palazzo, M. Lops: A Learning Approach for Low-Complexity Optimization of Energy Efficiency in Multi-Carrier Wireless Networks, *IEEE Transactions on Wireless Communications*, Vol. 17, n. 5, May 2018.

A. C. Anadiotis, S. Milardo, G. Morabito, S. Palazzo: Towards unified control of networks of switches and sensors through a Network Operating System, *IEEE Internet of Things Journal*, Vol. 5, n. 2, April 2018.

L. Galluccio, A. Lombardo, G. Morabito, S. Palazzo, C. Panarello, G. Schembra: Capacity of a Binary Droplet-Based Microfluidic Channel with Memory and Anticipation for Flow-Induced Molecular Communications, *IEEE Transactions on Communications*, Vol. 66, n. 1, January 2018.

S. D'Oro, E. Ekici, S. Palazzo: Optimal Power Allocation and Scheduling under Jamming Attacks, *IEEE/ACM Transactions on Networking*, Vol. 25, n. 3, June 2017.

S. D'Oro, L. Galluccio, S. Palazzo, G. Schembra: A Game Theoretic Approach for Distributed Resource Allocation and Orchestration of Softwarized Networks, *IEEE Journal on Selected Areas in Communications*, *Special Issue on Game Theory for Networks*, Vol. 35, n. 3, March 2017.

S. D'Oro, L. Galluccio, S. Palazzo, G. Schembra: Exploiting Congestion Games to Achieve Distributed Service Chaining in NFV Networks, *IEEE Journal on Selected Areas in Communications*, *Special Issue on Game Theory for Networks*, Vol. 35, n. 2, February 2017.

S. D'Oro, L. Galluccio, P. Mertikopoulos, G. Morabito, S. Palazzo: Auction-based resource allocation in OpenFlow multi-tenant networks, *Computer Networks*, Vol. 115, n. 2, February 2017.

A. C. Anadiotis, G. Morabito, S. Palazzo: An SDN-assisted Framework for Optimal Deployment of MapReduce Functions in WSNs, *IEEE Transactions on Mobile Computing*, Vol. 15, n. 9, September 2016.

- G. Castorina, L. Galluccio, S. Palazzo: On modeling information spreading in bacterial nano-networks based on plasmid conjugation, *IEEE Transactions on NanoBioscience*, Vol. 15, n. 6, September 2016.
- S. Serrano, G. Campobello, A. Leonardi, S. Palazzo, L. Galluccio: VoIP Traffic in Wireless Mesh Networks: A MOS-based Routing Scheme, *Wireless Communications and Mobile Computing*, Vol. 16, n. 10, July 2016.
- G. Campobello, L. Galluccio, S. Palazzo, A. Leonardi: A new generalised consensus problem and its CRT-based solution, *IEEE Transactions on Automatic Control*, Vol. 61, n. 3, March 2016.
- S. D'Oro, P. Mertikopoulos, A. Moustakas, S. Palazzo: Interference-based pricing for opportunistic multi-carrier cognitive radio systems, *IEEE Transactions on Wireless Communications*, Vol. 14, n. 12, December 2015.
- S. Fichera, L. Galluccio, S. Grancagnolo, G. Morabito, S. Palazzo: OPERETTA: An OPENflow-based REmedy To mitigate TCP SYNflood Attacks against web servers, *Computer Networks*, Vol. 92, Part 1, n. 9, December 2015.
- S. D'Oro, L. Galluccio, G. Morabito, S. Palazzo: Exploiting Object Group Localization in the Internet of Things: Performance Analysis, *IEEE Transactions on Vehicular Technology*, Vol. 64, n.8, August 2015.
- G. E. Santagati, T. Melodia, L. Galluccio, S. Palazzo: Medium Access Control and Rate Adaptation for Ultrasonic Intrabody Sensor Networks, *IEEE/ACM Transactions on Networking*, Vol. 23, n.4, August 2015.
- S. D'Oro, L. Galluccio, G. Morabito, S. Palazzo: A Timing Channel-based MAC protocol for energy-efficient Nanonetworks, *Nano Communication Networks*, Vol. 6, n.2, July 2015.
- S. D'Oro, L. Galluccio, G. Morabito, S. Palazzo, L. Chen, F. Martignon: Defeating Jamming with the Power of Silence: A Game-Theoretic Analysis, *IEEE Transactions on Wireless Communications*, Vol. 14, n. 5, May 2015.
- S. D'Oro, L. Galluccio, G. Morabito, S. Palazzo: SatCache: a profile-aware caching strategy for information-centric satellite networks, *Transactions on Emerging Telecommunications Technologies, Special Issue on Information-Centric Networking for Multimedia, Social, and Peer-to-Peer Communications*, Vol. 25, n. 4, April 2014.
- L. Galluccio, G. Morabito, S. Palazzo: TC-Aloha: A Novel Access Scheme for Wireless Networks with Transmit-Only Nodes, *IEEE Transactions on Wireless Communications*, Vol. 12, n.8, August 2013.
- L. Galluccio, G. Morabito, S. Palazzo: GEographic Multicast (GEM) for Dense Wireless Networks: Protocol Design and Performance Analysis, *IEEE/ACM Transactions on Networking*, Vol. 21, n. 4, August 2013.
- G. E. Santagati, T. Melodia, L. Galluccio, S. Palazzo: Ultrasonic Networking for e-Health Applications, *IEEE Wireless Communications Magazine, Special Issue on Wireless Networking for e-Health Applications*, Vol. 20, n. 4, August 2013.

L. Galluccio, S. Palazzo, G. E. Santagati: Characterization of molecular communications among implantable biomedical neuro-inspired nanodevices, *Nano Communication Networks*, Vol. 4, n. 2, June 2013.

G. Campobello, S. Serrano, L. Galluccio, S. Palazzo: Applying the Chinese Remainder Theorem to Data Aggregation in Wireless Sensor Networks, *IEEE Communications Letters*, Vol. 17, n. 5, May 2013.

A. Leonardi, S. Palazzo, C. Rametta, E. Knightly: A New Adaptive Receiver-initiated Scheme for Mitigating Starvation in Wireless Networks, *Ad Hoc Networks, Special Issue on Cross-Layer Design in Ad Hoc and Sensor Networks*, Vol. 11, n.2, March 2013.

G. Campobello, A. Leonardi, S. Palazzo: Improving Energy Saving and Reliability in Wireless Sensor Networks using a Simple CRT-based Packet Forwarding Solution, *IEEE/ACM Transactions on Networking*, Vol. 20, n. 1, February 2012.

International Conferences

F. Busacca, L. Galluccio, S. Mertens, D. Orto, S. Palazzo, S. Quattropani: An experimental testbed of an Internet of Underwater Things, Proc. of the 14th ACM Workshop on Wireless Network Testbeds, Experimental evaluation and Characterization (ACM WINTECH 2020), London, UK, September 25, 2020.

F. Busacca, C. Cirino, G. Faraci, C. Grasso, S. Palazzo, G. Schembra: Multi-Layer Offloading at the Edge for Vehicular Networks, Proc. of 2020 Mediterranean Communication and Computer Networking Conf. (MedComNet 2020), Arona, Italy, June 17-19, 2020.

F. Busacca, L. Galluccio, S. Palazzo: Drone-assisted Edge Computing: a game-theoretical approach, Proc. of 13th IEEE Workshop on Wireless Sensor, Robot and UAV Networks (IEEE WiSARN 2020), in conjunction with IEEE Infocom 2020, Toronto, Canada, July 6, 2020.

L. Galluccio, A. Lombardo, S. Palazzo, M. Reno: Guiding Ultrasonic Waves across Blood Vessels to Support Intra-Body Networks, Proc. of 5th *ACM/IEEE Int. Conf. on Nanoscale Computing and Communication (ACM/IEEE NANOCOM 2018)*, Reykjavik, Iceland, September 5-7, 2018.

S. D'Oro, A. Zappone, S. Palazzo, M. Lops: A learning-based approach to energy efficiency maximization in wireless networks, Proc. of *IEEE Wireless Communications and Networking Conf. (WCNC 2018)*, Barcelona, Spain, April 15-18, 2018.

S. D'Oro, S. Palazzo, G. Schembra: Orchestrating Softwarized Networks with a Marketplace Approach, *Proc. of 12th Int. Conf. on Future Networks and Communications (FNC 2017)*, Leuven, Belgium, July 24-26, 2017.

S. D'Oro, L. Galluccio, S. Palazzo, G. Schembra: A Marketplace as a Scalable Solution to the Orchestration Problem in SDN/NFV Networks, *Proc. of Third IEEE Conf. on Network Softwarization (NetSoft 2017)*, Bologna, Italy, July 3-7, 2017.

C. Di Paola, D. Lucani, S. Palazzo, J. Krigslund: Software Defined Coded Networking: Benefits of the PlayNCool protocol in wireless mesh networks, *Proc. VTC2017-Spring*, Sydney, Australia, June 4-7, 2017.

- S. D'Oro, E. Ekici, S. Palazzo: *Poster Abstract: Rate Maximization under Reactive Jamming Attacks*, *Proc. of ACM MobiHoc 2016*, Paderborn, Germany, July 5-8, 2016.
- P. Di Dio, S. Faraci, L. Galluccio, S. Milardo, G. Morabito, S. Palazzo, P. Livreri: Exploiting State information to Support QoS in Software-Defined WSNs, *Proc. Med-Hoc-Net 2016*, Vilanova i la Geltrù, Spain, June 20-21, 2016.
- A. C. Anadiotis, L. Galluccio, S. Milardo, G. Morabito, S. Palazzo: Towards a Software-Defined Network Operating System for the IoT, *Proc. of IEEE World Forum on Internet of Things (WF-IoT 2015)*, Milan, Italy, December 14-16, 2015.
- L. Galluccio, A. Lombardo, G. Morabito, S. Palazzo, C. Panarello, G. Schembra: On the tradeoff between data rate and error probability in discrete microfluidics, *Proc. of 2nd ACM Int. Conf. on Nanoscale Computing and Communication (ACM NANOCOM 2015)*, Boston, MA, September 21-22, 2015.
- S. Costanzo, L. Galluccio, G. Morabito, S. Palazzo: Software Defined Wireless Network (SDWN): an evolvable architecture for W-PANs, *Proc. of First Int. Forum for Research and Technologies for Society and Industry (RTSI 2015)*, Torino, Italy, September 16-18, 2015.
- L. Galluccio, S. Milardo, G. Morabito, S. Palazzo: SDN-WISE: Design, prototyping and experimentation of a stateful SDN solution for Wireless Sensor Networks, *Proc. of IEEE Infocom 2015*, Hong Kong, April 26- May 1, 2015.
- L. Galluccio, S. Milardo, G. Morabito, S. Palazzo: SDN-WISE: Reprogramming Wireless Sensor Networks: a Hands-on Demo, *Proc. of IEEE Infocom 2015*, Hong Kong, April 26- May 1, 2015.
- S. D'Oro, P. Mertikopoulos, A. Moustakas, S. Palazzo: Adaptive Transmit Policies for Cost-Efficient Power Allocation in Multi-Carrier Systems, *Proc. of Int. Workshop on Resource Allocation in Wireless Networks (RAWNET) – WiOpt 2014*, Hammamet, Tunisia, May 12, 2014.
- S. D'Oro, L. Galluccio, G. Morabito, S. Palazzo: On the trade-off between delivery delay and power consumption in opportunistic scenarios, *Proc. of 1st IEEE Int. Black Sea Conf. on Communications and Networking (BlackSeaCom 2013)*, Batumi, Georgia, July 3-5, 2013.
- G. E. Santagati, T. Melodia, S. Palazzo, L. Galluccio: Distributed MAC and Rate Adaptation for Ultrasonically Networked Implantable Sensors, *Proc. of IEEE SECON 2013*, New Orleans, LA, June 24-27, 2013.
- S. D'Oro, L. Galluccio, G. Morabito, S. Palazzo: Efficiency Analysis of Jamming-based Countermeasures Against Malicious Timing Channel in Tactical Communications, *Proc. of IEEE ICC 2013*, Budapest, Hungary, June 9-13, 2013.
- L. Galluccio, G. Morabito, S. Palazzo: Exploiting timing channel in intra-body sensor networks, *Proc. of IEEE Globecom 2012*, Anaheim, CA, December 3-7, 2012.
- S. Costanzo, L. Galluccio, G. Morabito, S. Palazzo: Software Defined Wireless Networks: Unbridling SDNs, *Proc. of EWSDN 2012 (European Workshop on Software Defined Networks)*, Darmstadt, Germany, October 25-26, 2012.
- L. Galluccio, G. Morabito, S. Palazzo: Caching in information-centric satellite networks, *Proc. of IEEE ICC 2012*, Ottawa, Canada, June 10-15, 2012.

L. Galluccio, S. Palazzo, G. E. Santagati: Capacity for signal propagation in nanomachine-to-neuron communications, *Proc. of 2nd IEEE Int. Workshop on Molecular and Nano-scale Communications (MoNaCom 2012)*, Ottawa, Canada, June 11, 2012.

L. Galluccio, T. Melodia, S. Palazzo, G. E. Santagati: Challenges and Implications of Using Ultrasonic Communications in Intra-body Area Networks, *Proc. of WONS 2012*, Courmayeur, Italy, January 9-11, 2012.