

Paolo Castagno

EDUCATION

- SEPTEMBER 2018 Ph.D. in **Computer Science** at Università degli studi di Torino
Supervisor Matteo Sereno
- APRIL 2014 Master degree in **Computer Science** at Università degli studi di Torino
Final degree mark 110/110 with honors
- OCTOBER 2011 Bachelor degree in **Computer Science** at Università degli studi di Torino

RESEARCH INTERESTS

Paolo Castagno's is mainly interested in performance evaluation and system modelling. Its line of work is primarily focused on the evaluation of wireless networks, and specifically on 3GPPP—such as 5G and 5G-NR—radio access network. Furthermore, its interests cover other network related topics such as opportunistic networking and edge computing.

Nonetheless, Paolo has extended its interest towards epidemiology, where mathematical modelling applies to the study of disease diffusion. The research activity on this line has been carried out thanks to a tight collaboration with the bioinformatics group at the Università degli Studi di Torino.

EXPERIENCE

Paolo Castagno is a Post Doctorate at the University of Turin. He obtained its PhD degree at University of Turin in 2018, as for its Master and Bachelor degrees—in 2011 and 2014 respectively.

During his experience, he has been collaborating with both national (University of Palermo, University of Urbino, University of Eastern Piedmont and Polytechnic of Turin) and international (ETH Zürich and Imdea Networks Institute) institutes. He also participated in several international conferences.

During its PhD, Paolo Castagno also spent one year at Imdea Networks Institute as an internship student. After its graduation, he contributed to several project aimed at the study of electrical consumption both in industrial applications and high performance computing.

TEACHING EXPERIENCE

- 2018 Sistemi Operativi I at Computer Science department,
 Università del Piemonte Orientale
- 2017-2018 Students tutoring for the course on Operative System
 at Computer Science department, Università degli studi di Torino

SCIENTIFIC COLLABORATIONS

| | |
|---|---|
| POLITECNICO DI TORINO & IMDEA NETWORKS INSTITUTE | This collaboration with top European research centers in networking boosted the results obtained in the study and modelling of 3GPPP-like networks |
| ISI FOUNDATION | The collaboration with ISI Foundation is mainly focused to the epidemiology line of work, providing the help of many experienced researcher of this field |
| UNIVERSITÀ DEL PIEMONTE ORIENTALE | Within this line of work Game Theory tools have been applied to the study of a system of distributed edge computing system. |

CONFERENCE ARTICLES

Vincenzo Mancuso, Castagno Paolo, Matteo Sereno, and Marco Ajmone Marsan. *Slicing Cell Resources: The Case of HTC and MTC Coexistence*. In IEEE International Conference on Computer Communications 2019 (INFOCOM). GRIN Ranking: A++

Castagno Paolo, Vincenzo Mancuso, Matteo Sereno, and Marco Ajmone Marsan. *A Simple Model of MTC in Smart Factories*. In IEEE International Conference on Computer Communications 2018 (INFOCOM). GRIN Ranking: A++

Castagno, Paolo, Vincenzo Mancuso, Matteo Sereno, and Marco Ajmone Marsan. *Closed form expressions for the performance metrics of data services in cellular networks*. In IEEE International Conference on Computer Communications 2018 (INFOCOM). GRIN Ranking: A++

Cosimo Filomeno Anglano, Massimo Canonico, Paolo Castagno, Marco Guazzone, Matteo Sereno. *A Game-Theoretic Approach to Coalition Formation in Fog Provider Federations*. In IEEE International Conference on Fog and Mobile Edge Computing (FMEC 2018), IEEE, 2018. GRIN Ranking: -

Castagno, Paolo, Vincenzo Mancuso, Matteo Sereno, and Marco Ajmone Marsan. *Why your smartphone doesn't work in very crowded environments*. In 2017 IEEE 18th International Symposium on A World of Wireless, Mobile and Multimedia Networks (WoWMoM), pp. 1-9. IEEE, 2017. GRIN Ranking: B

Musciotto Federico, Saverio Delpriori, Paolo Castagno, and Evangelos Pournaras. *Mining social interactions in privacy-preserving temporal networks*. 2016 IEEE/ACM International Conference On Advances in Social Networks Analysis and Mining (ASONAM), pp. 1103-1110. IEEE, 2016. GRIN Ranking: -

Castagno Paolo, Rossano Gaeta, Marco Grangetto, and Matteo Sereno. *Device-to-Device Content Distribution in Cellular Networks: A User-Centric Collaborative Strategy*. In 2015 IEEE Global Communications Conference (GLOBECOM), pp. 1-6. IEEE, 2015. GRIN Ranking: A-

JOURNALS

Paolo Castagno, Vincenzo Mancuso, Matteo Sereno and Marco Ajmone Marsan. *A Simple Model of MTC Flows Applied to Smart Factories*. IEEE Transactions on Mobile Computing

(2020). Scimago Journal Ranking: Q1.

Paolo Castagno, Vincenzo Mancuso, Matteo Sereno and Marco Ajmone Marsan. *Limitations and sidelink-based extensions of 3GPP cellular access protocols for very crowded environments*. Computer Networks 168 (2020). Scimago Journal Ranking: Q1.

Cosimo Anglano, Massimo Canonico, Paolo Castagno, Marco Guazzone, Matteo Sereno. *Profit-aware coalition formation in fog computing providers: A game-theoretic approach*. Concurrency and Computation: Practice and Experience (2019). Scimago Journal Ranking: Q2.

TECHNICAL PROGRAM COMMITTEE MEMBER

2019-2020 International Conference on Data Communications Networking (DCNET)

AWARDS

2019 *Slicing Cell Resources: The Case of HTC and MTC Coexistence*. IEEE Communications Systems Integration and Modeling Technical Committee Best Conference Paper Award.

2018 *A Game-Theoretic Approach to Coalition Formation in Fog Provider Federations*. Best Paper Award at IEEE International Conference on Fog and Mobile Edge Computing 2018.

SCHOLARSHIP AND RESEARCH FELLOWSHIP

2019 Research fellowship, *Hierarchical Open Manufacturing Europe (HOME)*, duration 18 months (P.I. Andras Horvath).

2018 Research fellowship, *Hierarchical Open Manufacturing Europe (HOME)*, duration 12 months (P.I. Andras Horvath).

2018 Research fellowship, *Development of IT tools for High Performance Computing data centres' performance evaluation and energy efficiency*, duration 5 months (P.I. Marco Beccuti).

2014 Scholarship, *Realisation of a simulator of a Device-to-Device communication system for mobile communications*, duration 3 months.(P.I. Matteo Sereno).