

Alessio Merlo

Curriculum Vitæ

Summary

- Current positions:
 - Full Professor in Computer Engineering, CASD - School of Advanced Defense Studies, Rome, Italy.
 - Vice-Director of the Postgraduate Master (Master di II Livello) in *Cybersecurity and Critical Infrastructure Protection*, University of Genoa.
 - Main Research Interests: Computer Security, Mobile Security.
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Appointments held

- 09/2023 - Rector Delegate for Cybersecurity, CASD - School of Advanced Defense Studies, Rome, Italy.
- 06/2023 - Full Professor in Computer Engineering, CASD - School of Advanced Defense Studies, Rome, Italy.
- 2020 - 2023 Associate Professor in Computer Engineering, DIBRIS, University of Genoa, Italy, from Oct. 2020.
- 2017 - 2020 Senior Assistant Professor (RTD-B, Tenure Track) in Computer Engineering, DIBRIS, University of Genoa, Italy, from Oct. 2017.
- 2014 - 2017 Fixed-term Assistant Professor (RTD-A), DIBRIS, University of Genoa, Italy, from Sept. 2014 to Aug. 2017.
- 2011- 2014 Fixed-term Assistant Professor, E-Campus University, Novedrate, Italy, from Mar. 2011 to Aug. 2014.
- 2011-2014 Research Associate, DIBRIS, University of Genoa, Italy, from Mar. 2011 to Aug. 2014.
- 2010-2011 Post-Doctoral Fellow, DIST, University of Genoa, Italy, from Feb. 2010 to Feb. 2011.
- 2005-2011 Research Associate, IEIIT, National Research Council, Genoa, from Nov. 2005 to Mar. 2011.
- 2005-2010 PhD. Student, DISI, University of Genoa, Italy, from Jan. 2005 to Apr. 2010.
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Visiting researcher

- NYIT 2015 New York Institute of Technology, New York, USA, from Sept. 2015 to Oct. 2015. Invitee: Prof. Paolo Gasti, NYIT.
- FBK 2010 Security & Trust Unit, Bruno Kessler Foundation, Trento, Italy, from Jun. 2010 to Sep. 2010. Invitee: Prof. Alessandro Armando, Security & Trust Unit.
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Education & Qualifications

- Nov. 2020 **Qualification for the role of Full Professor** in Computer Science (S.C. 01/B1), according to the Italian National Scientific Qualification Procedure ([ASN 2018-2020](#)).
- July 2018 **Qualification for the role of Full Professor** in Computer Engineering (S.C. 09/H1), according to the Italian National Scientific Qualification Procedure ([ASN 2016-2018](#)).
- Apr. 2017 **Qualification for the role of Associate Professor** both in Computer Engineering (S.C. 09/H1) and in Computer Science (S.C. 01/B1), according to the Italian National Scientific Qualification Procedure ([ASN 2016-2018](#)).
- Apr. 2010 **PhD** in Computer Science, DISI, University of Genoa. Title of the thesis: *An Architectural Approach to the Management of Applications with QoS Requirements on Grid*. [DISI 2010]. Advisors: V. Gianuzzi (DISI), A. Clematis (IMATI-CNR), A. Corana (IEIIT-CNR)
- Dec. 2005 **Professional ICT Engineering Qualification**, University of Genoa, Genoa.
- Sept. 2005 **MSc** in Computer Science, *magna cum laude*, DISI, University of Genoa.
- Oct. 2003 **BSc** in Computer Science, *magna cum laude*, DISI, University of Genoa.
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Publications

International Journals (51)

- [SftwX 2023b](#) F. Pagano, A. Romdhana, D. Caputo, L. Verderame, **A. Merlo**. *SEBASTiAn: a Static and Extensible Black-box Application Security Testing tool for iOS and Android applications*, in SoftwareX. DOI: [10.1016/j.softx.2023.101448](#).
- [CS 2023](#) A. Romdhana, **A. Merlo**, M. Ceccato, P. Tonella. *Assessing the security of inter-app communications in android through reinforcement learning*, in Computers & Security. DOI: [10.1016/j.cose.2023.103311](#).
- [Sftx2023a](#) G. Longo, A. Orlich, S. Musante **A. Merlo**, E. Russo. *MaCySTe: A virtual testbed for maritime cybersecurity*, in SoftwareX. DOI: [10.1109/TDSC.2022.314602](#).
- [TIFS 2023](#) G. Longo, E. Russo, A. Armando, **A. Merlo**. *Attacking (and Defending) the Maritime Radar System*, in IEEE Transactions on Information Forensics and Security. DOI: [10.1109/TIFS.2023.3282132](#).
- [TITS 2023](#) G. Longo, A. Orlich, **A. Merlo**, E. Russo. *Enabling Real-Time Remote Monitoring of Ships by Lossless Protocol Transformations*, in IEEE Transactions on Intelligent Transportation Systems. DOI: [10.1109/TITS.2023.3258365](#).
- [TDSC 2023](#) E. Russo, G. Costa, G. Longo, A. Armando, **A. Merlo**. *Lidite: a full-fledged and featherweight digital twin framework*, in IEEE Transactions on Dependable and Secure Computing. DOI: [10.1109/TDSC.2023.3236798](#).
- [TDSC 2022](#) D. Caputo, F. Pagano, G. Bottino, L. Verderame, **A. Merlo**. *You Can't Always Get What You Want: Towards User-Controlled Privacy on Android*, in IEEE Transactions on Dependable and Secure Computing. DOI: [10.1109/TDSC.2022.314602](#).
- [TOSEM 2022](#) A. Romdhana, **A. Merlo**, M. Ceccato, P. Tonella. *Deep Reinforcement Learning for Black-Box Testing of Android Apps*, in ACM Transactions on Software Engineering and Methodology. DOI: [10.1145/3502868](#).

- CSUR 2022 M. Guerar, L. Verderame, M. Migliardi, F. Palmieri, **A. Merlo**. *Gotta CAPTCHA'Em all: a survey of 20 Years of the human-or-computer Dilemma*, in ACM Computing Surveys. DOI: [10.1145/3477142](https://doi.org/10.1145/3477142).
- PMC 2021 **A. Merlo**, A. Ruggia, L. Sciolla, L. Verderame. *ARMAND: Anti-Repackaging through Multi-pattern Anti-tampering based on Native Detection*, in Pervasive and Mobile Computing. DOI: [10.1016/j.pmcj.2021.101443](https://doi.org/10.1016/j.pmcj.2021.101443).
- JoWuA 2021 F. Pagano, L. Verderame, **A. Merlo**. *Understanding Fuchsia Security*, in Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications. DOI: [10.22667/JOWUA.2021.09.30.047](https://doi.org/10.22667/JOWUA.2021.09.30.047).
- CS 2021 **A. Merlo**, A. Ruggia, L. Sciolla, L. Verderame. *You shall not repackage! demystifying anti-repackaging on android*, in Computers & Security. DOI: [10.1016/j.cose.2021.102181](https://doi.org/10.1016/j.cose.2021.102181).
- JISIS 2021 F. Pagano, L. Verderame, **A. Merlo**. *Deep Adversarial Learning on Google Home Devices*, in Journal of Internet Services and Information Security. DOI: [10.22667/JISIS.2021.11.30.033](https://doi.org/10.22667/JISIS.2021.11.30.033).
- IJGUC 2021 E. Russo, L. Verderame, A. Armando, **A. Merlo**. *DIOXIN: runtime security policy enforcement of fog applications*, in International Journal of Grid and Utility Computing. DOI: [10.1504/IJGUC.2021.114821](https://doi.org/10.1504/IJGUC.2021.114821)
- SftX 2020 S. Aonzo, G. C. Georghiu, L. Verderame, **A. Merlo**. *Obfuscapk: an open-source black-box obfuscation tool for Android apps*, in SoftwareX, Elsevier. DOI: [10.1016/j.softx.2020.100403](https://doi.org/10.1016/j.softx.2020.100403).
- JoWuA 2020 D. Caputo, L. Verderame, A. Ranieri, **A. Merlo**, L. Caviglione. *Fine-hearing Google Home: why silence will not protect your privacy*, in Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications. DOI: [10.22667/JOWUA.2020.03.31.035](https://doi.org/10.22667/JOWUA.2020.03.31.035).
- TEM 2019 M. Guerar, M. Migliardi, L. Verderame, F. Palmieri, **A. Merlo**. *A Fraud-resilient, Blockchain-based Solution for Invoice Financing*, in IEEE Transactions on Engineering Management. DOI: [10.1109/TEM.2020.2971865](https://doi.org/10.1109/TEM.2020.2971865).
- TCPS 2019 M. Guerar, L. Verderame, **A. Merlo**, F. Palmieri, M. Migliardi, L. Vallerini. *CirclePIN: a novel authentication mechanism for smartwatches to prevent unauthorized access to IoT devices*, in ACM Transactions on Cyber-Physical Systems. DOI: [10.1145/3365995](https://doi.org/10.1145/3365995).
- FGCS 2019 D. D'Agostino, L. Verderame, I. Merelli, L. Morganti, E. Corni, D. Cesini, **A. Merlo**. *A Secure Cloud-Edge Computing Architecture for Metagenomics Analysis*, in Future Generation Computer Systems, (accepted, to appear). DOI: [10.1016/j.future.2019.09.013](https://doi.org/10.1016/j.future.2019.09.013).
- CCPE 2019 M. Guerar, M. Migliardi, F. Palmieri, L. Verderame, **A. Merlo**. *Securing PIN-based Authentication in Smartwatches With just Two Gestures*, in Concurrency and Computation: Practice and Experience, (accepted, to appear). DOI: [10.1002/cpe.5549](https://doi.org/10.1002/cpe.5549).
- S&P 2019 S. Al-Haj Baddar, **A. Merlo**, M. Migliardi. *Behavioral Anomaly Detection in Forensics Analysis*, in IEEE Security and Privacy, pp. 55-62, Vol 17(1), 2019. DOI: [10.1109/MSEC.2019.2894917](https://doi.org/10.1109/MSEC.2019.2894917).
- CS 2018b M. Guerar, **A. Merlo**, M. Migliardi, F. Palmieri. *Invisible CAPPCHA: A usable mechanism to distinguish between malware and humans on the mobile IoT*, in Computers & Security, pp. 255-266, Vol. 78, 2018. DOI: [10.1016/j.cose.2018.06.007](https://doi.org/10.1016/j.cose.2018.06.007).
- CCPE 2018 S. Limet, **A. Merlo**, L. Spalazzi. *HPC & Co strike back: Where are distributed paradigms heading toward?*, in Concurrency and Computation: Practice and Experience, DOI: [10.1002/cpe.4431](https://doi.org/10.1002/cpe.4431).
- CS 2018 S. Al-Haj Baddar, **A. Merlo**, M. Migliardi, F. Palmieri. *Saving energy in aggressive intrusion detection through dynamic latency sensitivity recognition*, in Computers & Security, p. 1-15, ISSN: 0167-4048, DOI: [10.1016/j.cose.2017.12.003](https://doi.org/10.1016/j.cose.2017.12.003).
- TSCo 2017 S. Aonzo, **A. Merlo**, M. Migliardi, L. Oneto and F. Palmieri. *Low-Resource Footprint, Data-Driven Malware Detection on Android*, in IEEE Transactions on Sustainable Computing, vol. PP, no. 99, pp. 1-1. DOI: [10.1109/TSUSC.2017.2774184](https://doi.org/10.1109/TSUSC.2017.2774184)
- JWUA 2017 M. Guerar, **A. Merlo**, M. Migliardi. *ClickPattern: A Pattern Lock System Resilient to Smudge and Side-channel Attacks*, in Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications, 5(2), pp. 64-78.
- FGCS 2017 M. Guerar, **A. Merlo**, M. Migliardi. *Completely Automated Public Physical test to tell Computers and Humans Apart: A usability study on mobile devices*, in Future Generation Computer Systems. DOI: [10.1016/j.future.2017.03.012](https://doi.org/10.1016/j.future.2017.03.012).

- TDSC 2016 M. Guerar, M. Migliardi, **A. Merlo**, M. Benmohammed, F. Palmieri, A. Castiglione. *Using Screen Brightness to Improve Security in Mobile Social Network Access*, in IEEE Transactions on Dependable and Secure Computing. DOI: [10.1109/TDSC.2016.2601603](https://doi.org/10.1109/TDSC.2016.2601603).
- FGCS 2016 G. Costa, **A. Merlo**, L. Verderame, A. Armando. *Automatic Security Verification of Mobile App Configurations*, in Future Generation Computer Systems, Elsevier. DOI: [10.1016/j.future.2016.06.014](https://doi.org/10.1016/j.future.2016.06.014).
- IGPL 2016 **A. Merlo**, M. Migliardi, E. Spadacini. *IPS-Based Reduction of Network Energy Consumption*, in Logic Journal of the IGPL, Oxford Press. DOI: [10.1093/jigpal/jzw053](https://doi.org/10.1093/jigpal/jzw053).
- PMC 2016 **A. Merlo**, G. Costa, L. Verderame, A. Armando. *Android vs. SEAndroid: an Empirical Assessment*, in Pervasive & Mobile Computing, Vol. 30, pp. 113-131, Elsevier. DOI: [10.1016/j.pmcj.2016.01.006](https://doi.org/10.1016/j.pmcj.2016.01.006).
- JHSN 2016 S. Al-Haj Baddar, **A. Merlo**, M. Migliardi. *Generating Statistical Insights into Network Behavior Using SKETURE*, Journal of High Speed Networks, Vol. 22, N. 1, pp. 65-76, IoS Press. DOI: [10.3233/JHS-160539](https://doi.org/10.3233/JHS-160539).
- JCS 2015 **A. Merlo**, M. Migliardi, P. Fontanelli. *Measuring and Estimating Power Consumption in Android to Support Energy-based Intrusion Detection*, Journal of Computer Security, 23(5):611-637, IoS Press. DOI: [10.3233/JCS-150530](https://doi.org/10.3233/JCS-150530).
- PMC 2015 **A. Merlo**, M. Migliardi, L. Caviglione. *A Survey on Energy-Aware Security Mechanisms*, Pervasive & Mobile Computing, Vol. 24, pp. 77-90, Dec. 2015, Elsevier. DOI: [10.1016/j.pmcj.2015.05.005](https://doi.org/10.1016/j.pmcj.2015.05.005).
- IJIS 2015 A. Armando, G. Costa, **A. Merlo**, L. Verderame. *Formal modeling and automatic enforcement of Bring Your Own Device policies*, International Journal of Information Security, (2015) 14(2):123-140, Springer. DOI: [10.1007/s10207-014-0252-y](https://doi.org/10.1007/s10207-014-0252-y).
- JWUA 2014b A. Armando, G. Bocci, G. Chiarelli, G. Costa, G. De Maglie, R. Mammoliti, **A. Merlo**. *Mobile App Security Analysis with the MAVeriC Static Analysis Module*, Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications, (2014) 5(4):103-119.
- JWUA 2014a S. Al-Haj Baddar, **A. Merlo**, M. Migliardi. *Anomaly Detection in Computer Networks: A State-of-the-Art Review*, Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications, (2014) 5(4):29-64.
- IJCIP 2014 A. Armando, **A. Merlo**, L. Verderame. *Security considerations related to the use of mobile devices in the operation of critical infrastructures*, International Journal of Critical Infrastructure Protection, (2015) 7(4):247-256, Elsevier, DOI: [10.1016/j.ijcip.2014.10.002](https://doi.org/10.1016/j.ijcip.2014.10.002).
- Comp 2014 A. Armando, G. Costa, L. Verderame, **A. Merlo**, *Securing the "Bring Your Own Device" Paradigm*. IEEE Computer, (2014) 47(6):26-34. DOI: [10.1109/MC.2014.164](https://doi.org/10.1109/MC.2014.164).
- TDSC 2014 **A. Merlo**, M. Migliardi, N. Gobbo, F. Palmieri, A. Castiglione. *A Denial of Service Attack to UMTS Networks Using SIM-less Devices*, IEEE Transactions on Dependable and Secure Computing, (2014) 11(3):280-291, DOI: [10.1109/TDSC.2014.2315198](https://doi.org/10.1109/TDSC.2014.2315198). **Featured Article at IEEE CyberSecurity Initiative, 2015.**
- IJCSE 2014 L. Caviglione, M. Coccoli, **A. Merlo**. *A Taxonomy-based Model of Security and Privacy in Online Social Networks*, International Journal of Computational Science and Engineering, (2014) 9(4):325-338, Inderscience, DOI: [10.1504/IJCSE.2014.060717](https://doi.org/10.1504/IJCSE.2014.060717).
- CS 2013 A. Armando, **A. Merlo**, M. Migliardi, L. Verderame. *Breaking and Fixing the Android Launching Flow*, Computer & Security, (2013) 39A:104-115, Elsevier, DOI: [10.1016/j.cose.2013.03.009](https://doi.org/10.1016/j.cose.2013.03.009).
- JHSN 2013 M. Migliardi, **A. Merlo**, *Improving Energy Efficiency in Distributed Intrusion Detection Systems*, Journal of High Speed Networks, (2013) 19(3):251-264, IoS Press, DOI: [10.3233/JHS-130476](https://doi.org/10.3233/JHS-130476).
- FGCS 2013 **A. Merlo**. *Secure Cooperative Access Control on Grid*, Future Generation Computer Systems, (2013) 29(2):497-508, Elsevier. DOI: [10.1016/j.future.2012.08.001](https://doi.org/10.1016/j.future.2012.08.001).
- JISIS 2012 A. Armando, G. Costa, **A. Merlo**, L. Verderame. *Securing the Bring Your Own Device Policy*, Journal of Internet Services and Information Security (2012), 2(3):3-16. **Best Paper Award at MIST 2012.**
- JIAS 2012 L. Caviglione, **A. Merlo**, M. Migliardi. *Green-Aware Security: Towards a new Research Field*, Journal of Information Assurance and Security, (2012) 7(7):338-346, Dynamic Publishers Inc., USA.

- NS 2012 L. Caviglione, **A. Merlo**. *The Energy Impact of Security Mechanisms in Modern Mobile Devices*, Network Security, 2012(2):11-14, Elsevier. DOI : [10.1016/S1353-4858\(12\)70015-6](https://doi.org/10.1016/S1353-4858(12)70015-6).
- IGPL 2012 M. Aiello, **A. Merlo**, G. Papaleo. *Performance Assessment of DNS Tunneling Tools*, Logic Journal of the IGPL, (2012), Oxford Journals. DOI: [10.1093/jigpal/jzs029](https://doi.org/10.1093/jigpal/jzs029).
- JIAS 2011 **A. Merlo**. *A Cooperative Model for Resource Sharing on Grid*, Journal of Information Assurance and Security, (2011) 6(1):106-114, Dynamic Publishers Inc., USA.
- CCPE 2011 **A. Merlo**, A. Clematis, A. Corana, V. Gianuzzi. *Quality of Service on Grid: architectural and methodological issues*, in Concurrency and Computation: Practice and Experience, (2011) 23(8):745-766, Wiley, DOI: [10.1002/cpe.1641](https://doi.org/10.1002/cpe.1641).
- IJGUC 2009 V. Gianuzzi, D. D'Agostino, **A. Merlo**, A. Clematis. *Efficient management of resources and entities using the HyVonNe P2P architecture*, International Journal of Grid and Utility Computing, (2009) 1(3):216-226, DOI: [10.1504/IJGUC.2009.027649](https://doi.org/10.1504/IJGUC.2009.027649).

Books (2)

- ELS 2017 **A. Merlo**, M. Migliardi, S. Al-Haj Baddar. (Eds.) *Adaptive Mobile Computing: Advances in Processing of Mobile Data Sets*, DOI: [10.1016/C2015-0-01858-5](https://doi.org/10.1016/C2015-0-01858-5), Elsevier.
- IGI 2013 L. Caviglione, M. Coccoli, **A. Merlo** (Eds.) *Social Network Engineering for Secure Web Data and Services*; DOI: [10.4018/978-1-4666-3926-3](https://doi.org/10.4018/978-1-4666-3926-3), IGI-Global.

Book Chapters (8)

- IoT 2019 D. Caputo, L. Verderame, **A. Merlo**, L. Caviglione. *Investigating Traffic of Smart Speakers and IoT Devices: Security Issues and Privacy Threats*, in Internet of Things and Secure Smart Environments: Success and Pitfalls, CRC Press.
- SNE 2013b L. Caviglione, M. Coccoli, **A. Merlo**. *A Graph-based Approach to Model Privacy and Security Issues of Online Social Networks*, in Social Network Engineering for Secure Web Data and Services, pp. 184-205, IGI-Global. DOI: [10.4018/978-1-4666-3926-3.ch009](https://doi.org/10.4018/978-1-4666-3926-3.ch009).
- SNE 2013a L. Caviglione, M. Coccoli, **A. Merlo**. *On Social Network Engineering for Secure Web Data and Services*, in Social Network Engineering for Secure Web Data and Services', pp. 1-4, IGI-Global. DOI: [10.4018/978-1-4666-3926-3.ch001](https://doi.org/10.4018/978-1-4666-3926-3.ch001).
- HGI 2012 L. Caviglione, **A. Merlo**. *Analysis and Development of Green-Aware Security Mechanisms for Modern Internet Applications*, in Handbook of Green Information and Communication Systems, pp. 589-610, Wiley. DOI: [10.1016/B978-0-12-415844-3.00023-1](https://doi.org/10.1016/B978-0-12-415844-3.00023-1).
- RIE 2012 **A. Merlo**, A. Corana, V. Gianuzzi, A. Clematis. *SoRTSim: A high-level simulator for the evaluation of QoS models on Grid*, Remote Instrumentation for eScience and Related Aspects, Springer, pp. 161-176, Springer, ISBN 978-1-4614-0507-8, DOI: [10.1007/978-1-4614-0508-5_11](https://doi.org/10.1007/978-1-4614-0508-5_11).
- RIS 2011 **A. Merlo**, D. D'Agostino, V. Gianuzzi, A. Clematis, A. Corana. *GridWalker: a visual tool for supporting the advanced discovery of Grid resources*, in: Remote Instrumentation Services in the e-infrastructure, pp. 103-112, Springer, ISBN 978-1-4419-5573-9, DOI: [10.1007/978-1-4419-5574-6_8](https://doi.org/10.1007/978-1-4419-5574-6_8).
- RIV 2010 **A. Merlo**, A. Clematis, A. Corana, D. D'Agostino, V. Gianuzzi, A. Quarati. *SoRTGrid: a Grid framework compliant with Soft Real Time requirements*, in Remote Instrumentation and Virtual Laboratories: Service Architecture and Networking, pp. 145-161, Springer, ISBN 978-1-4419-5595-1, DOI: [10.1007/978-1-4419-5597-5_13](https://doi.org/10.1007/978-1-4419-5597-5_13).
- GER 2008 A. Clematis, A. Corana, D. D'Agostino, V. Gianuzzi, **A. Merlo**. *Grid services for 3D data analysis in Virtual Laboratories*, in Grid Enabled Remote Instrumentation, pp. 481-498, Springer, ISBN 978-0-387-09662-9, DOI: [10.1007/978-0-387-09663-6_32](https://doi.org/10.1007/978-0-387-09663-6_32).

International Conference Proceedings (69)

- AsiaCCS 2024 A. Ruggia, **A. Merlo**, A. Possemato, S. Aonzo. *Unmasking the Veiled: A Comprehensive Analysis of Android Evasive Malware*, in Proc. of AsiaCCS 2024, 19th ACM ASIA Conference on Computer and Communications Security, Jul. 2024, Singapore. .
- EuroS&P 2023 A. Ruggia, **A. Merlo**, A. Possemato, D. Nisi, S. Aonzo. *Android, Notify Me When It Is Time To Go Phishing*, in Proc. of the EUROSP 2023, 8th IEEE European Symposium on Security and Privacy, Jul. 2023, Delft, Netherlands. DOI: [10.1109/EuroSP57164.2023.00010](https://doi.org/10.1109/EuroSP57164.2023.00010).
- EuroSP 2023 WS G. Benedetti, L. Verderame, **A. Merlo**. *A Preliminary Study of Privilege Life Cycle in Software Management Platform Automation Workflows*, in Proc. of the EUROSP 2023, 8th IEEE European Symposium on Security and Privacy Workshops, Jul. 2023, Delft, Netherlands. .
- SCORED 2022 G. Benedetti, L. Verderame, **A. Merlo**. *Automatic Security Assessment of GitHub Actions Workflows*, in Proc. of the ACM Workshop on Software Supply Chain Offensive Research and Ecosystem Defenses, Nov. 11, 2022, Los Angeles, California, USA. DOI: [10.1145/3560835.3564554](https://doi.org/10.1145/3560835.3564554).
- QUATIC 2022 G. Benedetti, L. Verderame, **A. Merlo**. *Alice in (Software Supply) Chains: Risk Identification and Evaluation*, in Proc. of the 15th International Conference on the Quality of Information and Communications Technology, Sep. 12-14, 2022, Talavera de la Reina, Spain. DOI: [10.1007/978-3-031-14179-9_19](https://doi.org/10.1007/978-3-031-14179-9_19).
- ICST 2022 A. Romdhana, M. Ceccato, **A. Merlo**, P. Tonella. *IFRIT: Focused Testing through Deep Reinforcement Learning*, in Proc. of the 2022 IEEE International Conference on Software Testing, Verification, and Validation, Apr. 4-13, 2022, virtual. **Best Paper Award**. DOI: [10.1109/ICST53961.2022.00013](https://doi.org/10.1109/ICST53961.2022.00013).
- ACSAC 2021 A. Ruggia, E. Losiouk, L. Verderame, M. Conti, **A. Merlo**. *Repack Me If You Can: An Anti-Repackaging Solution Based on Android Virtualization*, in Proc. of the 2021 Annual Computer Security Application Conference, Dec. 6-10, 2021, virtual. **Best Artifact Award**. DOI: [10.1145/3485832.3488021](https://doi.org/10.1145/3485832.3488021).
- PerCom 2021 A. Romdhana, **A. Merlo**. *ARES: A Deep Reinforcement Learning Tool for Black-Box Testing of Android Apps*, in Proc. of the 2021 IEEE Annual Conference on Pervasive Computing and Communications, Mar. 22-26, 2021, virtual. DOI: [10.1109/PerComWorkshops51409.2021.9431072](https://doi.org/10.1109/PerComWorkshops51409.2021.9431072).
- ICST 2021 A. Romdhana, M. Ceccato, G. C. Georgiu, **A. Merlo**, P. Tonella. *COSMO: Code Coverage Made Easier for Android*, in Proc. of the 2021 IEEE International Conference on Software Testing, Verification, and Validation, Apr. 12-16, 2021, virtual. DOI: [10.1109/ICST49551.2021.00053](https://doi.org/10.1109/ICST49551.2021.00053).
- ICTSS 2020b E. Russo, L. Verderame, **A. Merlo**. *Enabling Next-Generation Cyber Ranges with Mobile Security Components*, in Proc. of the 2020 International Conference on Testing Software and Systems, Dec. 9-11, 2020, Rome, Italy. DOI: [10.1007/978-3-030-64881-7_10](https://doi.org/10.1007/978-3-030-64881-7_10).
- ICTSS 2020a L. Verderame, D. Caputo, , A. Romdhana, **A. Merlo**. *APPregator: A Large-Scale Platform for Mobile Security Analysis*, in Proc. of the 2020 International Conference on Testing Software and Systems, Dec. 9-11, 2020, Rome, Italy. DOI: [10.1007/978-3-030-64881-7_5](https://doi.org/10.1007/978-3-030-64881-7_5).
- ACNS 2020 D. Caputo, L. Verderame, **A. Merlo**. *MobHide: App-Level Runtime Data Anonymization on Mobile*, in Proc. of the 2020 International Conference on Applied Cryptography and Network Security, Oct. 19-22, 2020, Rome, Italy. DOI: [10.1007/978-3-030-61638-0_27](https://doi.org/10.1007/978-3-030-61638-0_27).
- IJCNN 2020 L. Verderame, D. Caputo, A. Romdhana, **A. Merlo**. *On the (un)reliability of privacy policies in Android*, in Proc. of the International Joint Conference on Neural Networks, Jul. 19-24, 2020, Glasgow, Scotland. DOI: [10.1109/IJCNN48605.2020.9206660](https://doi.org/10.1109/IJCNN48605.2020.9206660).
- NDSS 2020 A. Mantovani, S. Aonzo, X. Ugarte-Pedrero, **A. Merlo**, D. Balzarotti. *Prevalence and Impact of Low-Entropy Packing Schemes in the Malware Ecosystem*, in Proc. of the 2020 Network and Distributed System Security Symposium, Feb. 23-26, 2020, San Diego, USA. DOI: [10.14722/ndss.2020.24297](https://doi.org/10.14722/ndss.2020.24297).

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- ItaSec 2020 D. Caputo, L. Verderame, **A. Merlo**, A. Ranieri, L. Cavaglione. *Are you (Google) Home? Detecting Users' Presence through Traffic Analysis*, in Proc. of the 4th Italian Conference on Cybersecurity, Feb. 4-7, 2020, Ancona, Italy.
- WISTP 2019 N. Dejon, D. Caputo, L. Verderame, A. Armando, **A. Merlo**. *Automated Security Analysis of IoT Software Updates*, in Proc. of the 13th WISTP International Conference on Information Security Theory and Practice, pp. 223-239, Dec. 11-12, 2019, Paris, France. DOI: [10.1007/978-3-030-41702-4_14](https://doi.org/10.1007/978-3-030-41702-4_14).
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- IDEAS 2019 M. Guerar, L. Verderame, **A. Merlo**, M. Migliardi. *Blockchain-based risk mitigation for invoice financing*, in Proc. of the 23rd International Database Applications & Engineering Symposium, Jun. 10-12, Athens, Greece. DOI: [10.1145/3331076.3331093](https://doi.org/10.1145/3331076.3331093).
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- HPCS 2014 **A. Merlo**, M. Migliardi, P. Fontanelli, *On Energy-Based Profiling of Malware in Android*, in Proc. of the 9th International Conference on High Performance Computing and Simulation, pp. 535-542, July 21-25, Bologna, Italy. DOI: [10.1109/HPCSim.2014.6903732](https://doi.org/10.1109/HPCSim.2014.6903732).
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- AINA 2013 M. Migliardi, **A. Merlo**, *Energy Consumption Simulation of Different Distributed Intrusion Detection Approaches*, in Proc. of 27th IEEE International Conference on Advanced Information Networking and Applications, pp. 1547-1552, IEEE, DOI: [10.1109/WAINA.2013.214](https://doi.org/10.1109/WAINA.2013.214). **Best Paper Award.**
- SAC 2013 A. Armando, G. Costa, **A. Merlo**, L. Verderame, *Bring Your Own Device, Securely*, in Proc. of the 28th ACM Symposium on Applied Computing, Vol. 2, pp. 1852-1858, ACM. DOI: [10.1145/2480362.2480707](https://doi.org/10.1145/2480362.2480707).
- SEC 2013 A. Armando, **A. Merlo**, L. Verderame, *An Empirical Evaluation of the Android Security Framework*, in Proc. of the 28th International Conference on ICT Systems Security and Privacy Protection, LNCS, Vol. 405, pp. 176-189, Springer, DOI: [10.1007/978-3-642-39218-4_14](https://doi.org/10.1007/978-3-642-39218-4_14).
- ARES 2013 N. Gobbo, **A. Merlo**, M. Migliardi, *A Denial of Service attack to GSM networks via attach procedure*, in Proc. of the 8th International Conference on Availability, Reliability and Security, LNCS, Vol. 8128, pp. 361-376, Springer, DOI: [10.1007/978-3-642-40588-4_25](https://doi.org/10.1007/978-3-642-40588-4_25).
- HPCS 2013 M. Curti, **A. Merlo**, M. Migliardi, S. Schiappacasse, *Towards Energy-Aware Intrusion Detection Systems on Mobile Devices*, in Proc. of the 8th International Conference on High Performance Computing and Simulation, pp. 289-296, IEEE, DOI: [10.1109/HPCSim.2013.6641428](https://doi.org/10.1109/HPCSim.2013.6641428).
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- SEC 2012 A. Armando, **A. Merlo**, A. Migliardi, L. Verderame, *Would you mind forking this process? A Denial-of-Service attack on Android (and some countermeasures)*, in Proc. of the 27th International Conference on ICT Systems Security and Privacy Protection, LNCS IFIP AICT n.376, pp. 13-24, Springer, DOI: [10.1007/978-3-642-30436-1_2](https://doi.org/10.1007/978-3-642-30436-1_2). **Best Paper Award.**
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- ECL 2012 P. Maresca, **A. Merlo**, M. Arrigoni Neri, L. Stanganelli, *Using ETC framework in virtual laboratories for online students* in Proc. of the 7th Workshop of the Italian Eclipse Community.
- IAS 2011 L. Caviglione, **A. Merlo**, M. Migliardi, *What is Green Security?*, in Proc. of the 7th International Conference on Information Assurance and Security, Malacca (Malaysia), pp. 366-371, IEEE. DOI: [10.1109/ISIAS.2011.6122781](https://doi.org/10.1109/ISIAS.2011.6122781).

- PST 2011** P. Gasti, **A. Merlo**, *On Re-Use of Randomness in Broadcast Encryption*, in Proc. of the 9th IEEE International Conference on Privacy, Security and Trust, Canada, pp. 36-43, IEEE, DOI: [10.1109/PST.2011.5971961](https://doi.org/10.1109/PST.2011.5971961).
- CISIS 2011** **A. Merlo**, G. Papaleo, S. Veneziano, M. Aiello, *A Comparative Performance Evaluation of DNS Tunneling Tools*, in Proc. of the 4th International Conference on Computational intelligence in Security for Information Systems, LNCS Vol. 6694, 2011, pp. 84-91, Springer, DOI: [10.1007/978-3-642-21323-6_11](https://doi.org/10.1007/978-3-642-21323-6_11).
- MiPRO 2011** M. Migliardi, **A. Merlo**, *Modeling the energy consumption of a distributed IDS: a step towards Green Security*, in Proc. of the 34th IEEE International Convention on Information and Communication Technology, Electronics and Microelectronics, pp. 1452 - 1457, IEEE.
- NCA 2010** P. Gasti, **A. Merlo**, G. Ciaccio, G. Chiola, *On the Integrity of Network Coding-based Anonymous P2P File Sharing Networks*, in Proc. of the 9th IEEE International Symposium on Network Computing and Applications, pp.192-197, IEEE, DOI: [10.1109/NCA.2010.34](https://doi.org/10.1109/NCA.2010.34).
- IAS 2010** **A. Merlo**, A. Armando, *Cooperative Access Control for the Grid*, in Proc. of the 6th International Conference on Information Assurance and Security, pp. 228-233, IEEE, DOI: [10.1109/ISIAS.2010.5604068](https://doi.org/10.1109/ISIAS.2010.5604068).
- MPAC 2010** V. Gianuzzi, **A. Merlo**, *Beaconing support in Publish-Subscribe Middleware for Vehicular Applications*, in Proc. of the 2nd International Workshop on Pervasive Mobile and Embedded Computing, pp. 1-8, ACM, DOI: [10.1145/1890791.1890795](https://doi.org/10.1145/1890791.1890795).
- CISIS 2008b** V. Gianuzzi, **A. Merlo**, A. Clematis, D. D'Agostino, *Managing Networks of Mobile Entities using the HyVonNe P2P Architecture*, in Proc. of the 2nd International Conference on Complex, Intelligent and Software Intensive Systems, pp. 335-341, IEEE, DOI: [10.1109/CISIS.2008.62](https://doi.org/10.1109/CISIS.2008.62).
- CISIS 2008a** A. Clematis, A. Corana, D. D'Agostino, V. Gianuzzi, **A. Merlo**, A. Quarati, *A Distributed Approach for Structured Resource Discovery on Grid*, in Proc. of the 2nd International Conference on Complex, Intelligent and Software Intensive Systems, pp. 117-125. IEEE, DOI: [10.1109/CISIS.2008.112](https://doi.org/10.1109/CISIS.2008.112).
- GADA 2006** A. Clematis, A. Corana, D. D'Agostino, V. Gianuzzi, **A. Merlo**, *Resource selection and application execution in a Grid: A migration experience from GT2 to GT4*, in Proc. of the International Conference on Grid computing, high-performance and Distributed Applications, LNCS, n. 4276, pp. 1132-1142, Springer, DOI: [10.1007/11914952_4](https://doi.org/10.1007/11914952_4).

Magazine articles (3)

- MD 2013** M. Migliardi, **A. Merlo**, *Mobile Devices: new security problems*, in Mondo Digitale, No. 48, Dec. 2013.
- ERCIM 2013** G. Costa, **A. Merlo**, L. Verderame, *Market-based Security for Mobile Devices*, in Ercim News, No. 93, pp. 32-33, Apr. 2013.
- MD 2012** L. Caviglione, **A. Merlo**, M. Migliardi, *Green Security: Energy Saving and Security*, in Mondo Digitale, No. 44, Dec. 2012.

Honors, Awards & Invited Talks

Best Paper Awards (5)

- Apr. 2022 BEST PAPER AWARD at ICST 2022 for the paper *IFRIT: Focused Testing through Deep Reinforcement Learning*. [[ICST 2022](#)].
- Dec. 2021 BEST ARTIFACT AWARD at ACSAC 2021 for the paper *Repack Me If You Can: An Anti-Repackaging Solution Based on Android Virtualization*. [[ACSAC 2021](#)].

- Mar. 2013 BEST PAPER AWARD at AINA 2013 for the paper *Energy Consumption Simulation of Different Distributed Intrusion Detection Approaches* [[AINA 2013](#)].
- Nov. 2012 BEST PAPER AWARD at MIST 2012 for the paper *Securing the Bring Your Own Device Policy* [[JISIS 2012](#)].
- Jun. 2012 BEST PAPER AWARD at SEC 2012 for the paper: *Would you mind forking this process? A Denial of Service Attack on Android (and some countermeasures)* [[SEC 2012](#)].
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Journal Paper Recognitions (2)

- Feb. 2015 The paper *A Denial of Service to UMTS networks* has been recommended in the Spotlight on Transactions 2015 in the paper Denial-of-Service Attacks to UMTS, IEEE Computer, Vol. 48, N. 2, p. 6, 2015, DOI: [0.1109/MC.2015.42](#).
- Apr. 2014 The paper *A Denial of Service to UMTS networks* has been selected as Featured Article at the [IEEE Cyber Security Initiative](#).
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Technological Transfer Awards (5)

- Feb. 2018 Best Start-Up Award at ITASEC 2018, Milan, Italy.
- Nov. 2015 *Talent Gardner 2015* Award for the [Approver](#) Tool.
- Nov. 2015 Best Pitch Award at [Smart Cup Liguria 2015](#) for the [Approver](#) Tool.
- Dec. 2014 Finalist at [EIT ICT Labs Idea Challenge for CyberSecurity and Privacy 2014](#), with the [BYODroid](#) project.
- Jun. 2014 Winner of the [StartCup 2013](#) for the [BYODroid](#) project.
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University Awards (6)

- Jun. 2006 Special Mention Award from [AICA-FEDERCOMIN](#) for my M.Sc. thesis, recognized as one of the 16 best Italian M.Sc. theses on ICT in 2005.
- Sept. 2005 Diploma with merit at [Istituto Superiore di Studi in Tecnologie della Comunicazione e dell'Informazione \(ISICT\)](#).
- Sept. 2004 Scholarship from Istituto Superiore di Studi in Tecnologie della Comunicazione e dell'Informazione (ISICT) for a.y. 2004/05.
- Sept. 2003 Scholarship from Istituto Superiore di Studi in Tecnologie della Comunicazione e dell'Informazione (ISICT) for a.y. 2003/04.
- Jun. 2002 Scholarship for academic merits from [Fondazione Pretto-Cassanello](#) for a.y. 2001/02.
- Jun. 2001 Scholarship for academic merits from [Fondazione Pretto-Cassanello](#) for a.y. 2000/01.
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Invited Talks, Seminars, and Lectures (10)

- HPC'22 *Invited Lecture* at the International Ph.D. School on Extreme-scale big data analytics and scientific computing on heterogeneous platforms, Sep. 26-30, 2022, Villa Grumello, Lake Como, Italy.
- IoT'22 *Two Invited Lectures* at the International School on IoT, , Lecture titles:Securing Mr. Mobile and Securing Dr. JackIoT May. 23-24, 2022, Salerno, Italy.
- USI'21 *Invited Talk* at the Computer Science Department, Università della Svizzera Italiana, Talk title: Mobile Apps: the Dark Side of the Droid Dec. 6, 2021.

- PerCom'21 *Keynote Speaker* at the IEEE Annual Conference on Pervasive Computing and Communications. Talk title: ARES: A Deep Reinforcement Learning Tool for Black-Box Testing of Android Apps Mar. 22, 2021.
- SecLab'19 Annual Meeting of the CINI Italian Cybersecurity Lab at University of Salento, Sep. 30th, 2019, Lecce, Italy. Talk title: Mobile and IoT: the "odd couple" of application security.
- DIAG'19 University of Rome "Sapienza", Jun. 21st, 2019, Rome, Italy. Talk title: 2009-2019: the #10yearschallenge of Mobile Security.
- EuSpace'18 EUSpace Summer school, Jul. 11th 2018, Imperia, Italy. Talk title: Mobile Security: How smart are mobile devices, today?
- HPCS'17 Invited Speaker at *2017 International Conference on High Performance Computing & Simulation*, Jul. 20th 2017, Genoa, Italy. Talk title: From HPC to Security: How to change Research Focus and Survive.
- QUB'17 Queen's University, Feb. 1st 2017, Belfast, Northern Ireland. Talk title: Mobile Security: From Android to BYOD and... beyond.
- ECS'16 University of Southampton, Dec. 16th 2016, Southampton, England. Talk title: Mobile Security between OS and application security.
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Fundings & Grants

- 01/23 - 12/25 COLTRANE-V, [PRIN 2022 PE6 Project](#), PI: Alessandro Savino (PoliTO) Role: Co-Principal Investigator. Total Project Funding: € 285.000. CASD funding: € 71.000
- 11/23 - 10/25 Securing Containers (SecCo) Project, EU funded project - NextGenEU, in the frame of the Piano Nazionale di Ripresa e Resilienza, [SERICS](#) Foundation, Spoke 4, [Operating Systems Security](#): Role: Principal Investigator. Total Project Funding: € 2.600.000. UniGe funding: € 360.000
- 01/22 - 12/24 Bando Incentivazione alla Progettazione Europea (BIPE), funded by the University of Genoa, Role: Principal Investigator Funding: € 30.000.
- 09/20 - 04/22 Blockchain-enabled Intelligent Agricultural Service (BIAS) Project, POR-Piemonte Project, Role: Project Leader (Responsabile di unità) the University of Genoa. UniGE funding: € 160.000.
- 09/19 - 08/22 ITER: Gestore Avanzato di Scambi di Potenza in Alta Tensione per Reti Energetiche della Difesa, PNRM (Piano Nazionale Ricerca Militare) Project, Role: Project Leader (Responsabile di unità) for [CIRCIE](#) (Interdipartimental Research Center on the Cybersecurity of Electrical Infrastructures) unit, University of Genoa. CIRCIE funding: € 153.000.
- 09/19 - 08/21 HealthChain Project, Regional project - Liguria, d.G.r. 13/6/2018 n. 422 Asse 3, Linea 1, Istruzione e Formazione, FSE 2014-2020. Public funding for a two-year research grant on security aspects of blockchain for e-health. Role: Principal Investigator. Total funding: € 47.574.
- 05/19 - 11/20 Colibri Project, POR Liguria. Role: Subcontractor of Nextage s.r.l. Funding: € 25.000.
- 04/19 - 03/22 SPARTA Project, H2020 Project, Call H2020-SU-ICT-2018-2, Grant. nr. 830892. Role: Task Leader for [CINI](#) (Consorzio Interuniversitario Nazionale per l'Informatica). CINI funding: € 625.000.
- 02/19 - 01/21 HideDroid Project, Regional project, funded by University of Genoa. Principal Investigator. Funding: € 70.000.
- 01/19 - 12/19 Stand2 Project, [EIT Digital](#) European project - Title: "API Assistant: Automated Security Assessment of 3rd party apps for the API economy" Project nr. 19184. Role: Co-Project Leader for University of Genoa(UniGE). UniGE total funding: € 70.550.
- 01/19 - 12/21 Lighthouse Project, a national project funded by the Italian Ministry of Education, University and Research (MIUR). Role: Project Leader for UniGE. UniGE total funding: € 100.000.
- 12/18 - 11/21 Research activity on Android Malware Analysis, individual grant funded by the Italian Presidency of the Council of Ministers. Role: Princial Investigator. Funding: € 75.000.

- 05/18 - 04/21 FINSEC Project, H2020 Project, Call H2020-CIP-2016-17, Grant. nr. 786727. Role: Co-Project Leader for CINI. CINI funding: € 375.000.
- 04/18 - 03/21 FINSEC Shared Lab: individual funding granted by [GFT Italy](#), to set up a shared laboratory at DIB-RIS focused on research activities on cybersecurity for Financial Services, Role: Principal Investigator. Total funding: € 240.000 (€ 80.000 per year).
- 05/18 - 12/19 NatDroid Project, funded by the University of Genoa. Role: Principal Investigator. Total funding: € 15.000.
- 11/14 - 10/16 BYODCert Project, funded by the University of Genoa. Role: Principal Investigator. Total funding: € 16.000.
- 01/14 - 12/16 Smart Intelligent and Eco-friendly Mobility (MIE) Project, funded by the Italian Ministry of Education, University and Research (MIUR). Total funding: € 7.782.800. Role: Task Leader for University of Genoa. http://www.s3lab.polito.it/progetti/progetti_in_corso/mie
- 03/13 - 02/16 PLUG-IN Project, funded by the Italian Ministry of Education, University and Research (MIUR). Role: Task Leader for University of Genoa. Total funding: € 3.408.950. Unige funding: 50.000 <http://www.siitscpa.it/index.php/progetti/2011-09-24-14-26-55/plug-in>.
- 10/12 - 09/15 Security Horizons (PRIN Project no. 2010XSEMLC), funded by the Italian Ministry of Education, University and Research (MIUR). Total funding: € 572.157. Role: Task Leader. <http://people.unica.it/bart/2012/10/24/security-horizons/>.
- 11/11 - 03/13 Security and Cloud Computing Project, POR Liguria, funded by Liguria Region. Role: Co-Project Leader. Total funding: € 150.000. https://sites.google.com/a/manydesigns.com/cloud_security/.
- 11/10 - 03/14 SPaCloS Project, Project no. 257876, FP7-ICT-2009-5, ICT-2009.1.4: Trustworthy ICT, funded by EC. Role: Faculty participant. Total funding: € 3.610.000. <http://www.spacios.eu>.
- 03/10 - 02/12 SINTESES Project, funded by the Italian Ministry of Education, University and Research (MIUR). Role: Faculty participant. Total funding: € 3.600.00. <http://www.siitscpa.it/index.php/progetti/2011-09-24-14-26-54/sintesis>.

Services to the profession

Editorial Activity (7)

- 2020 - Associate Editor of [Frontiers of Computer Science - Computer Security](#).
- 2018 - 2020 Guest Editor of the Special Issue on *Lightweight Solutions for Cyberspace Security: Research Advances and Challenges*, [International Journal of Embedded Systems](#).
- 2016 - 2018 Lead Guest Editor of the Special Issue on *Advances in High Performance Computing and Simulations*, to be hosted at *Concurrency and Computation: Practice and Experience*, Wiley.
- 2015 - 2017 Lead Editor of the book *Adaptive Mobile Computing: Advances in Processing of Mobile Data Sets*, Elsevier.
- 2015 - 2016 Member of the Editorial Advisory Board of the book *Security Solutions and Applied Cryptography in Smart Grid Communications*, IGI-Global.
- Jan. 2014 - Associate Editor, [Journal of High Speed Networks](#), IoS Press.
- 2012 - 2013 Editor of the book *Social Network Engineering for Secure Web Data and Services*. DOI: 10.4018/978-1-4666-3926-3.

General Chair (2)

- EuroS&P'22** 7th IEEE European Symposium on Security and Privacy, June 06-10, 2022, Genoa. <https://www.ieee-security.org/TC/EuroSP2022/>
- HPCS'17** 15th International Conference on High Performance Computing & Simulation, July 17-21, 2017, Genoa. <http://hpcs2017.cisedu.info>
At the same conference, I worked as Social Events co-chair, Local Arrangement and Support co-chair, and Student Support and Volunteers co-chair.
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Workshop Chair (1)

- EuroS&P'20** 5th IEEE European Symposium on Security and Privacy, Jun. 16-18, 2020, Genoa, Italy.
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Local Chair (1)

- AIxIA'16** 15th International Conference of the Italian Association for Artificial Intelligence, Nov. 21-25, 2016, Genoa, Italy.
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Workshop Organizer (7)

- SPCloud'17** 7th International Workshop on Security and Performance in Cloud Computing, July 17-21, 2017, Genoa, Italy.
- SHPCS'17** 13th International Workshop on Security and High-Performance Computing, July 17-21, 2016, Genoa, Italy.
- SPCloud'16** 6th International Workshop on Security and Performance in Cloud Computing, July 18-22, 2016, Innsbruck, Austria.
- SHPCS'16** 12th International Workshop on Security and High-Performance Computing, July 18-22, 2016, Innsbruck, Austria.
- SPCloud'15** 5th International Workshop on Security and Performance in Cloud Computing, July 20-24, 2015, Amsterdam, the Netherlands.
- SHPCS'15** 11th International Workshop on Security and High-Performance Computing, July 20-24, 2015, Amsterdam, the Netherlands.
- SPCloud'14** 4th International Workshop on Security and Performance in Cloud Computing, July, 21-25, Bologna, Italy.
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Track Organizer (4)

- ITASEC'16** Track: Demos. 1st Italian Conference on Cyber Security.
- IMIS 2015** Track: Smart Spaces and Intelligent Environments, 9th International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing.
- IMIS 2014** Track Security, Trust and Privacy, 8th International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing.
- INCoS 2014** Track Mobile Collaborative Systems, 6th International Conference on Intelligent Networking and Collaborative Systems, Sep. 10-12, 2014, Salerno, Italy.
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Journal Reviewer (15)

- 2018 - [IEEE Transactions on Emerging Topics in Computing](#).
 - 2018 - [Information Sciences](#), Springer.
 - 2017 - [IEEE Transactions on Dependable and Secure Computing](#).
 - 2017 - [Soft Computing](#), Springer.
 - 2016 - [ACM Transactions on Cyber-Physical Systems](#), ACM.
 - 2016 - [The Journal of Supercomputing](#), ISSN: 0920-8542, Springer.
 - 2015 - [Pervasive and Mobile Computing](#), ISSN: 0045-7906, Elsevier.
 - 2015 - [Computers & Electrical Engineering](#), ISSN: 0045-7906, Elsevier.
 - 2015 - [Telematics and Informatics](#), ISSN: 0736-5853, Elsevier.
 - 2014 - [Journal of Systems and Software](#), ISSN: 0164-1212, Elsevier.
 - 2013 - [Journal of High Speed Networks](#), ISSN: 0926-6801, IoS Press.
 - 2012 - [Computers & Security](#), ISSN: 0167-4048, Elsevier.
 - 2011 - [Future Generation Computer Systems](#), ISSN: 0167-739X, Elsevier.
 - 2011 - [Journal of Network and Computer Applications](#), ISSN: 1084-8045, Elsevier.
 - 2010 - [Concurrency and Computation, Practice and Experience](#), ISSN: 1532-0634, Elsevier.
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TPC Membership (74)

- WISTP'24 14th International Conference on Information Security Theory and Practice, Feb. 29 - Mar. 1, 2024, Paris, France.
- ICISSP'24 10th International Conference on the Information System Security & Privacy, Feb. 26-28, 2024, Rome, Italy.
- MobiSec'23 7th International Conference on Mobile Internet Security, Dec. 19-21, 2023, Okinawa, Japan.
- TrustCom'23 22nd IEEE International Conference on Trust, Security and Privacy in Computer and Communications, Nov. 1-3, 2023, Exeter, UK.
- CloudCom'23 14th IEEE International Conference on Cloud Computing Technology and Science, Dec. 4-6, 2023, Naples, Italy.
- WISTP'23 13th International Conference on Information Security Theory and Practice, Dec. 2023, Paris, France.
- ICISSP'23 9th International Conference on the Information System Security & Privacy, Feb. 22-24, 2023, Lisbon, Portugal.
- QUATIC'22 15th International Conference on the Quality of Information and Communications Technology, Sep. 12-14, 2022, Talavera de la Reina, Spain.
- CSR'22 2022 International Conference on Cyber Security and Resilience, Jul. 27-29, 2022, *virtual*.
- IJCAI'22 31st International Joint Conference on Artificial Intelligence, Jul. 23-29, 2022, Vienna, Austria.
- QUATIC'22 14th International Conference on the Quality of Information and Communications Technology, Sep. 8-10, 2021, *virtual*.
- Secrypt'22 19th International Conference on Security and Cryptography, Jul. 11-13, 2022, Lisbon, Portugal.
- IJCAI'21 30th International Joint Conference on Artificial Intelligence, Aug. 19-26, 2021, *virtual*.
- Secrypt'21 18th International Conference on Security and Cryptography, Jul. 8-10, 2021, *virtual*.
- CSR'21 2021 International Conference on Cyber Security and Resilience, Mar. 22-24, 2021, Rhodes, Greece.
- Secrypt'20 17th International Conference on Security and Cryptography, Jul. 8-10, 2019, Paris, France.
- TrustCom'20 19th IEEE International Conference on Trust, Security and Privacy in Computer and Communications, Nov. 10-13, 2020, Guangzhou, China.
- SAC'20 35th ACM/SIGAPP Symposium on Applied Computing, Mar. 30 - Apr. 3, 2020, Brno, Czech Republic.

- WISTP'19 13th International Conference on Information Security Theory and Practice, Dec. 11-12, 2019, Paris, France.
- IAS'19 15th IEEE International Conference on Information Assurance and Security, Dec. 11-12, 2019, Bhopal, India.
- MobiSec'19 4th International Symposium on Mobile Internet Security, Oct. 17-19, 2019, Taichung, Taiwan.
- RACS'19 2019 Research in Adaptive and Convergent Systems, Sep. 24-27, 2019, Chongqing, China.
- FINSEC'19 1st International Workshop on Security for Financial Critical Infrastructures and Services, Sep. 23-27 2019, Luxembourg.
- TrustCom'19 18th IEEE International Conference on Trust, Security and Privacy in Computer and Communications, Aug. 5-8, 2019, Rotorua, New Zealand.
- Secrypt'19 16th International Conference on Security and Cryptography, Jul. 26-28, 2019, Prague, Czech Republic.
- WETICE'19 23rd IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises, Jun. 12-14, 2019, Capri, Italy.
- SAC'19 34th ACM/SIGAPP Symposium on Applied Computing, Apr. 8-12, 2019, Limassol, Cyprus.
- WISTP'18 12th International Conference on Information Security Theory and Practice, Dec. 10-11, 2018, Bruxelles, Belgium.
- GPC'18 13th International Conference on Green, Pervasive and Cloud Computing, Mar. 11-13, 2018, Hangzhou, China.
- IAS'18 14th IEEE International Conference on Information Assurance and Security, Dec. 13-15, 2018, Porto, Portugal.
- SHPCS'18 13th International Workshop on Security and High-Performance Computing, July, 16-20, 2018, Orleans, France.
- SAC'18 33rd ACM SIGAPP Symposium On Applied Computing, Apr. 9-13, 2018, Pau, France.
- EasyCose'17 4th International Workshop on Energy-Aware Systems, Communications, and Security, Jul. 10-12, 2017, Turin, Italy.
- MSPN'17 3rd International Conference on Mobile, Secure and Programmable Networking, June 29-30, 2017, Paris, France.
- EUSPN'17 8th International Conference on Emerging Ubiquitous Systems and Pervasive Networks, Sep. 18-20, 2017, Lund, Sweden.
- AINA 2017 31st IEEE International Conference on Advanced Information Networking and Applications, Mar. 27-29, Taipei, Taiwan. 12th International Conference on Green, Pervasive and Cloud Computing, May 11-14, Cetara, Italy.
- GPC'17 12th International Conference on Green, Pervasive and Cloud Computing, May 11-14, Cetara, Italy.
- HPCS'17 32nd International Conference on High-Performance Computing & Simulation, July 17-21, 2017, Genoa, Italy.
- SPCloud'17 7th International Workshop on Security and Performance in Cloud Computing, July 17-21, 2017, Genoa, Italy.
- SHPCS'17 13th International Workshop on Security and High-Performance Computing, July 17-21, 2017, Genoa, Italy.
- SAC'17 32nd ACM SIGAPP Symposium On Applied Computing, Apr. 3-7, 2017, Marrakech, Morocco.
- MIST'16 8th ACM CCS International Workshop on Managing Insider Security Threats, In Conjunction with ACM CCS 2016, Oct. 24-28, 2016, Vienna, Austria.
- WISTP'16 10th International Conference on Information Security Theory and Practice, Sep. 26-27, 2016, Heraklion, Crete, Greece.
- MobiSec'16 2016 International Symposium on Mobile Internet Security, Jul. 14-15, 2016, Taichung, Taiwan.
- MSPN'16 2nd International Conference on Mobile, Secure and Programmable Networking, June 1-3, 2016, Paris, France.
- EasyCose'16 3rd International Workshop on Energy-Aware Systems, Communications, and Security, March 23-25, 2016, Crans-Montana, Switzerland.
- HPCS'16 31st International Conference on High-Performance Computing & Simulation, July 18-22, 2016, Innsbruck, Austria.

- SPCloud*16 6th International Workshop on Security and Performance in Cloud Computing, July 18-22, 2016, Innsbruck, Austria.
- SHPCS*16 12th International Workshop on Security and High-Performance Computing, July 18-22, 2016, Innsbruck, Austria.
- WISTP*15 9th International Conference on Information Security Theory and Practice, Aug. 24-25, 2015, Heraklion, Crete, Greece.
- HPCS*15 30th International Conference on High-Performance Computing & Simulation, July 20-24, 2015, Amsterdam, the Netherlands.
- MSPN*15 1st International Conference on Mobile, Secure and Programmable Networking, June 15-17, 2015, Paris, France.
- SPCloud*15 5th Int. Workshop on Security, Privacy and Performance in Cloud Computing July 20-24, 2015, Amsterdam, the Netherlands.
- SHPCS*15 10th International Workshop on Security and High-Performance Computing Systems, July 20-24, 2015, Amsterdam, the Netherlands.
- INCoS*15 7th International Conference on Intelligent Networking and Collaborative Systems, Sep. 2-4, 2015, Taipei, Taiwan.
- SPCloud*14 4th International Workshop on Security, Privacy and Performance in Cloud Computing, July, 21-25, Bologna, Italy.
- HPCS*14 29th International Conference on High Performance Computing & Simulation, July, 21-25, Bologna, Italy.
- NBiS*14 17th International Conference on Network-based Information Systems, Sept. 10-12, 2014, Salerno, Italy.
- INCoS*14 6th International Conference on Intelligent Networking and Collaborative Systems, Sept. 10-12, 2014, Salerno, Italy.
- EasyCose*16 2nd International Workshop on Energy-Aware Systems, Communications and Security, Sept. 10-12, 2014, Salerno, Italy.
- IMIS*14 8th International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing, July 2-4, 2014, Birmingham, UK.
- CISIS*14 8th International Conference on Complex, Intelligent, and Software Intensive Systems, July 2-4, 2014, Birmingham, UK.
- SHPCS*14 9th International Workshop on Security and High-Performance Computing Systems, July 25-29, 2014, Bologna, Italy.
- IAS*14 10th IEEE International Conference on Information Assurance and Security, November 27-29, 2014, Okinawa, Japan.
- NBiS*13 16th International Conference on Network-based Information Systems, Sept. 4-6, 2013, Gwangju, China.
- SEC*13 28th IFIP International Information Security and Privacy Conference, July 8-10, 2013, Auckland, New Zealand.
- IAS*13 9th IEEE International Conference on Information Assurance and Security, December 4-6, 2013, Yasmine Hammamet, Tunisia.
- SHPCS*13 8th International Workshop on Security and High-Performance Computing Systems, July 1-5, 2013, Helsinki, Finland.
- EasyCose*13 1st International Workshop on Energy-Aware Systems, Communications and Security, March 25-28, 2013, Barcelona, Spain.
- IAS*12 8th IEEE International Conference on Information Assurance and Security, November 21-23, 2012, Sao Carlos, Brazil.
- SHPCS*12 7th International Workshop on Security and High-Performance Computing Systems, July 2-6, 2012, Madrid, Spain.
- IAS*11 7th IEEE International Conference on Information Assurance and Security, December 5-8, 2011, Malacca, Malaysia.

Member of Research and Teaching Committees and Third Mission activities

- Sep. 2022 - Chair of the 2022 editions of [Unige Senior](#) - university teaching program for elderly people - for the Engineering branch of the program.
- Sep. 2021 - Chair of the 2021 and 2022 editions of the [Samsung Innovation Campus - Smart Things Edition](#), a teaching partnership with Samsung to provide an extra-curricular 51 classroom training activity on AI, ML, and IoT topics. Samsung funded three fellowships per year for the best students of the course.
- Sep. 2020 - Member of the Steering Committee for the courses of Foundation of Malware Analysis, Network forensics, Big data analysis, Advanced Malware Analysis, and Digital forensics. Telecommunication School for Italian Armed Forces, Chiavari.
- Dec. 2019 - Member of the Surveillance Committee of the [Ligurian Technological District](#).
- Feb. 2019 - Director of the [2nd level postgraduate Master in Cyber Security and Critical Infrastructure Protection](#).
- Jan. 2021 - Ph.D. Board Member of the [National Ph.D. Program in Artificial Intelligence](#) at the University of Rome, Sapienza.
- Jan. 2020 - Ph.D. Board Member of the [Ph.D. program on Security, Risk, and Vulnerability](#) at the University of Genoa.
- Dec. 2020 - Ph.D. Board Member of the [Ph.D. Program in Computer Science and Engineering](#) at the University of Genoa.
- Jan. 2018 - Ph.D. Board Member of the [Ph.D. Program in Computer Science and Engineering](#) at the University of Genoa.
- Dec. 2019 - Ph.D. Board Member of the [Ph.D. Program in Computer Science and Engineering](#) at the University of Genoa.
- Mar. 2016 - Member of the Research Committee at DIBRIS, University of Genoa, for the research program [Security and Safety of Critical Systems](#).
- Mar. 2016 - Member of the steering committee for several courses at [Telecommunication School for Italian Armed Forces](#), Chiavari, Italy.

Event Organization (4)

- Oct. 2017 Organizer and chair of the [2017 CSecLab Workshop on Hot Topics in Security](#), DIBRIS, University of Genoa.
- Oct. 2016 Organizer and chair of the [2016 CSecLab Workshop on Security Analysis](#), DIBRIS, University of Genoa.
- Mar. 2016 Organizer and chair of the [2015 CSecLab Workshop on Security of Mobile Applications](#), DIBRIS, University of Genoa.
- Oct. 2014 Organizer of the [2014 CSecLab Workshop on Mobile Security](#), DIBRIS, University of Genoa.

Technological Transfer

- Talos **Co-founder and Chief Technology Officer** of the Talos startup (<http://www.talos-security.com>), founded on 20th Jan. 2016 in Savona (Italy) and currently hosted by the University of Genoa. Talos has implemented and sells Approver, a tool performing a complete security analysis of mobile applications. The technology as well as the methodologies at the basis of Approver are the result of the research described in [\[IJIS 2015\]](#), [\[TGC 2012\]](#), [\[ETAPS 2015\]](#) and [\[MIST 2015a\]](#).

MAVeriC The research results presented in [TGC 2012], [JWUA 2014b], [ETAPS 2015] and [MIST 2015a] have been applied in the tool MAVeriC, currently adopted by Poste Italiane S.p.A. to perform security assessment of Android apps.

BYODroid The research results presented in [TGC 2012], [JISIS 2012], [SAC 2013], [WiSec 2014], [Comp 2014] and [IJIS 2015], have been applied in the tool BYODroid that supports the enforcement of BYOD security policy on Android devices. BYODroid is currently adopted at Nato NCI Agency Cyber Security Innovation, L'Aia, Netherlands, as discussed in [ICM 2016].

Teaching Activity

Courses

(2014-) *Assistant Professor and Associate Professor*, DIBRIS, University of Genoa.

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)
Ph.D. in Security, Risk and Vulnerability	IoT Security	6	2019/20	now
Ph.D. in Computer Science and Systems Engineering	Data Hiding	6	2018/19	now
Ph.D. in Computer Science and Systems Engineering	Mobile Security	6	2015/16	now
M.Eng. Computer Engineering	Virtualization and Cloud Computing	6	2018/19	now
M.Sc. Computer Science	Data Protection & Privacy	6	2016/17	now
B. Eng. Computer Engineering	Mobile Programming	6	2014/15	now
Ph.D. Computer Science	Mobile Security	3	2014/15	now
Postgrad. Diploma in Cyber Security	Web Security	3	2014/15	now
Undergrad. Diploma in ICT (ITS-ICT)	MySQL Programming	6	2014/15	now
Undergrad. Diploma in ICT (ITS-ICT)	Web Programming	6	2014/15	2014/15
<i>Tirocinio Formativo Assistito</i>	Found. of Comp. Science	6	2014/15	2014/15
<i>Percorsi Abilitativi Speciali</i>	Found. of Comp. Science	6	2014/15	2014/15

(2014-) *Lecturer*, Telecommunication School for Italian Armed Forces, Chiavari, Italy

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)
Postgrad. Diploma in Security Governance	Vulnerability Assessment	6	2016/17	now
Vocat. Training in ICT Systems	XML Programming	6	2020/21	now
Vocat. Training in ICT Systems	PHP Programming	6	2020/21	now
Vocat. Training in ICT Systems	ASP.NET Programming	6	2016/17	now
Vocat. Training in ICT Systems	Java Programming	6	2016/17	now
Vocat. Training in ICT Systems	Basics of Programming	6	2014/15	now
Vocat. Training in ICT Systems	C/C++ Programming	6	2014/15	now
Vocat. Training in ICT Systems	Java Programming	6	2011/12	now
Postgrad. Diploma in ICT Systems	Computer Security	6	2013/14	2013/14
Postgrad. Diploma in ICT Systems	Java Programming	6	2013/14	2013/14
Postgrad. Diploma in ICT Systems	Databases	6	2013/14	2013/14
Postgrad. Diploma in ICT Systems	Information Systems	6	2013/14	2013/14

(2014-2015) *Lecturer*, University of Donjia Gorica, Montenegro

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)
Postgraduate Diploma in Cyber Security	Web Security	3	2014/15	2014/15

(2011-2014) *Lecturer*, Dep. of Computer Engineering, University of Genoa, Italy

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)
B. Eng. Computer Engineering	Web Programming	6	2010/11	2013/2014

(2011-2014) *Assistant Professor*, E-Campus University, Novedrate, Italy

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)
M.Eng. Computer Engineering	Network Security	6	2014/15	2014/15
M.Eng. Computer Engineering	Computer Security	6	2014/15	2014/15
M.Eng. Computer Engineering	Java Programming	12	2013/14	2014/15
B.Eng. Computer Engineering	Computer Architecture	6	2011/12	2013/14
B.Eng. Computer Engineering	Operating Systems	6	2011/12	2013/14
B.Eng. Computer Engineering	Found. of Computer Science	12	2011/12	2013/14
B.Eng. Civil Engineering	Found. of Computer Science	6	2011/12	2013/14
B.Eng. Mechanical Engineering	Found. of Computer Science	6	2011/12	2013/14
B.Eng. Computer Engineering	Software Engineering	6	2011/12	2011/12
B.Eng. Computer Engineering	Databases	6	2011/12	2011/12
BSc. Computer Engineering	Artificial Intelligence	6	2011/12	2011/12

(2006-2010) *Teaching Assistant*, DIST, University of Genoa, Italy

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)
M. Eng. Computer Engineering	Computer Security	6	2009/10	2010/11
B. Eng. Computer Engineering	Web Programming	6	2009/10	2009/10

(2006-2010) *Lecturer*, DISI, University of Genoa, Italy

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)
MSc. Computer Science	Distributed Operating Systems	6	2006/07	2007/08
BSc. Computer Science	Operating Systems	6	2006/07	2009/10

Supervision

Funded Research Grants and Scholarships

- I funded a total amount of 12-year research grants (*assegni di ricerca*) to five different people among postdocs, Ph.D. students, and collaborators.
- I also funded a total amount of 3-year scholarships to six master and post-master students to support my research activity.

PostDoc and Research Supervision (3)

- 2021- PostDoc Supervisor of Alessandro Orlich, DIBRIS, University of Genoa.
2018-2020 PostDoc Supervisor of Meriem Guerar, DIBRIS, University of Genoa.
2018-2021 PostDoc Supervisor of Luca Verderame, DIBRIS, University of Genoa.

PhD. Supervision (14)

- 2023-2026 Doctoral Supervisor of [Gianluca De Lucia](#) (Cycle XXXIX) *Defense and Security Studies*, CASD - School of Advanced Defence Studies, Rome.
2022-2025 Doctoral Supervisor of [Giovanni Minuto](#) (Cycle XXXVII), *National Ph.D. Program in Artificial Intelligence*, University of Rome Sapienza. Research topic: Quantum Cryptography.

- 2022-2025 Doctoral Supervisor of Serena Cofano (Cycle XXXVII), [National Ph.D. Program in Cybersecurity](#), IMT School for Advanced Studies, Lucca. Research topic: 5G: Cybersecurity and Legal Aspects.
- 2021-2024 Doctoral Supervisor of [Solange Bronzini](#) (Cycle XXXVI), DIBRIS, University of Genoa. Research topic: 5G: Cybersecurity and Legal Aspects.
- 2021-2024 Doctoral Supervisor of [Giacomo Longo](#) (Cycle XXXVI), [National Ph.D. Program in Artificial Intelligence](#), University of Rome Sapienza. Research topic: Maritime Security and Cyber Ranges.
- 2021-2024 Doctoral Supervisor of [Francesco Pagano](#) (Cycle XXXVI), DIBRIS, University of Genoa. Research topic: Mobile Security.
- 2021-2024 Doctoral Supervisor of [Giacomo Renato Benedetti](#) (Cycle XXXVI), DIBRIS, University of Genoa. Research topic: IoT-Mobile Ecosystem Security.
- 2020-2023 Doctoral Supervisor of [Antonio Ruggia](#) (Cycle XXXV), DIBRIS, University of Genoa. Research topic: Mobile Malware.
- 2020-2023 Doctoral Supervisor of [Marco Raimondi](#) (Cycle XXXV), DIBRIS, University of Genoa. Research topic: Maritime Security.
- 2019-2022 Doctoral Supervisor of [Andrea Romdhana](#) (Cycle XXXIV), DIBRIS, University of Genoa. Research topic: IoT Security.
- 2019-2022 Doctoral Supervisor of [Marco Zuppelli](#) (Cycle XXXIV), DIBRIS, University of Genoa. Research topic: Detection of Steganomalware.
- 2018-2021 Doctoral Supervisor of [Davide Caputo](#) (Cycle XXXIII), DIBRIS, University of Genoa. Research topic: Automatic analysis of IoT applications.
- 2017-2020 Doctoral Supervisor of [Simone Anzo](#) (Cycle XXXII), DIBRIS, University of Genoa. Research topic: Android security and mobile malware. Thesis title: Novel Attacks and Defenses in the Userland of Android.
- 2013-2016 Doctoral Supervisor of [Luca Verderame](#) (Cycle XXVIII), DIBRIS, University of Genoa. Research topic: Android security and Trusted Execution Environments. Thesis title: A Framework for Automatic Security Assessment of Mobile Applications

PostGraduate Diplomas Supervision

- 2015- Advisor of 47 theses of several Postgraduate Diplomas on Cybersecurity topics, University of Genoa.
- 2013-2014 Advisor of 7 theses at the Postgraduate Diploma in *ICT Systems*, Telecommunication School for Italian Armed Forces, Chiavari, Italy.

Master Theses Supervision

- 2010 - Advisor of 43 M.Eng. Theses, course of Computer Engineering, DIBRIS, University of Genoa.
- 2011 - 2014 Advisor of 3 M.Eng. Theses, course of Computer Engineering, E-Campus University.
- 2006 - Advisor of 9 M.Sc. Theses, course of Computer Science, DISI, University of Genoa.

Bachelor Theses Supervision

- 2010 - Advisor of around 300 B.Eng. Theses, course of Computer Engineering, DIBRIS, University of Genoa. (September 2019)
- 2011 - 2014 Advisor of 19 B.Eng. Theses, course of Computer Engineering, E-Campus University.
- 2006 - 2010 Advisor of 15 B.Sc. Theses, course of Computer Science, DISI, University of Genoa.

Last updated: December 22, 2023
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