

# Alessio Merlo

## Curriculum Vitæ

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DIBRIS - University of Genoa

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Born: February 06, 1980—Savona, Italy

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### Current position

*Assistant Professor (RTD-A)*, DIBRIS - University of Genoa

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### Areas of interest

Computer Security, Operating Systems, Distributed Systems.

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### Appointments held

- 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 (2)

- 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

- 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.
  - Dissertation Topic: *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

#### Book (2)

- [ELS](#) [2017](#) **A. Merlo**, M. Migliardi, S. Al-Haj Baddar. (Eds.) *Adaptive Mobile Computing: Advances in Processing of Mobile Data Sets*; Elsevier. ISBN: 9780128046036. Expected release: Aug. 2017.
- [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](#), IGI-Global.
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#### Journal articles (24)

- [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 Trans. on Dependable and Secure Computing. DOI: [10.1109/TDSC.2016.2601603](#). (To appear).
- [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](#).

- 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, *Modeling and Enforcing 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).
- JoWUA  
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.
- JoWUA  
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).
- Computer  
2014 A. Armando, G. Costa, **A. Merlo**, L. Verderame, *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).

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### Book Chapters (7)

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).

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#### International Conference Proceedings (40)

- IFIP-SEC  
2017 **A. Merlo**, G. C. Georgiu, *RiskInDroid: Machine Learning-based Risk Analysis on Android*, in Proc. of the 32<sup>nd</sup> International Conference on ICT Systems Security and Privacy Protection, Rome, Italy.
- GPC  
2017 **A. Merlo**, *BYODCert: Toward a Cross-Organizational BYOD paradigm*, in Proc. of the 12<sup>th</sup> International Conference on Green, Pervasive and Cloud Computing, Cetara, Italy.
- GPC  
2017 S. Al Haj Baddar, **A. Merlo**, M. Migliardi, F. Palmieri, *Dynamic Latency Sensitivity Recognition: an Application to Energy Saving*, in Proc. of the 12<sup>th</sup> International Conference on Green, Pervasive and Cloud Computing, Cetara, Italy.
- HPCS  
2016 **A. Merlo**, L. Lorrai, L. Verderame, *Efficient Trusted Host-based Card Emulation on TEE-enabled Android Devices*, in Proc. of the 11<sup>th</sup> International Conference on High Performance Computing Systems, pp. 454-459, Innsbruck, Austria. DOI: [10.1109/HPCSim.2016.7568370](https://doi.org/10.1109/HPCSim.2016.7568370).

- AsiaCCS 2016 G. Costa, P. Gasti, **A. Merlo**, S.-H. Yu. *FLEX: A Flexible Code Authentication Framework for Delegating Mobile App Customization*, in Proc. of the 11<sup>th</sup> ACM Asia Conference on Computer and Communications Security, pp. 389-400, Xi'an, China. DOI: [10.1145/2897845.2897887](https://doi.org/10.1145/2897845.2897887).
- ICMCIS 2016 A. Armando, G. Costa, **A. Merlo**, L. Verderame, K. Wrona, *Developing the NATO BYOD Security Policy*, in Proc. of the 15<sup>th</sup> International Conference on Military Communications and Information Systems, pp. 1-6, Brussels, Belgium. DOI: [10.1109/ICMCIS.2016.7496587](https://doi.org/10.1109/ICMCIS.2016.7496587).
- AINA 2016 **A. Merlo**, M. Migliardi, E. Spadacini, *Balancing Delays and Energy Consumption in IPS-Enabled Networks*, in Proc. of the 30<sup>th</sup> IEEE International Conference on Advanced Information Networking and Applications, pp. 267-272, Crans-Montana, Switzerland. DOI: [10.1109/WAINA.2016.109](https://doi.org/10.1109/WAINA.2016.109)
- CCS MIST 2015b S. Al-Haj Baddar, **A. Merlo**, M. Migliardi, *SKETURE: A Sketch-based Packet Analysis tool*, in Proc. of the 7th ACM CCS International Workshop on Managing Insider Security Threats, pp. 67-70, Denver, USA. DOI: [10.1145/2808783.2808791](https://doi.org/10.1145/2808783.2808791).
- CCS MIST 2015a A. Armando, G. Bocci, G. Costa, R. Mammoliti, A. Merlo, S. Ranise, R. Traverso, A. Valenza, *Mobile App Security Assessment with the MAVeriC Dynamic Analysis Module*, in Proc. of the 7th ACM CCS International Workshop on Managing Insider Security Threats, pp. 41-49, Denver, USA. DOI: [10.1145/2808783.2808786](https://doi.org/10.1145/2808783.2808786).
- 3PGCIC 2015 M. Migliardi, **A. Merlo**, A. Passaglia, *On the Feasibility of Moderating a Peer-to-Peer CDN System: A Proof-of-Concept Implementation* in Proc. of the 10th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing, Krakow, Poland. DOI : [10.1109/3PGCIC.2015.53](https://doi.org/10.1109/3PGCIC.2015.53).
- CSF 2015 A. Armando, R. Carbone, G. Costa, **A. Merlo**, *Android Permissions Unleashed*, in Proc. of the 28<sup>th</sup> IEEE Computer Security Foundations Symposium, IEEE. DOI: [10.1109/CSF.2015.29](https://doi.org/10.1109/CSF.2015.29).
- ETAPS 2015 A. Armando, G. Bocci, G. Chiarelli, G. Costa, G. De Maglie, R. Mammoliti, and **A. Merlo**, *SAM: the Static Analysis Module of the MAVERIC Mobile App Security Verification Platform*, in Proc. of 2015 European Joint Conferences on Theory and Practice of Software, LNCS Vol. 9035, 2015, pp 225-230, Springer, DOI: [10.1007/978-3-662-46681-0\\_19](https://doi.org/10.1007/978-3-662-46681-0_19).
- HPCS 2015b A. Armando, **A. Merlo**, L. Verderame, *Trusted Host-Based Card Emulation*, in Proc. of the 10<sup>th</sup> International Conference on High Performance Computing Systems, IEEE. DOI: [10.1109/HPCSim.2015.7237043](https://doi.org/10.1109/HPCSim.2015.7237043).
- HPCS 2015a M. Guerar, M. Migliardi, **A. Merlo**, M. Benmohammed, B. Messabih, *A Completely Automatic Public Physical test to tell Computers and Humans Apart: a way to enhance authentication schemes in mobile devices*, in Proc. of the 10<sup>th</sup> International Conference on High Performance Computing Systems, IEEE. DOI: [10.1109/HPCSim.2015.7237041](https://doi.org/10.1109/HPCSim.2015.7237041).
- WiSec 2014 A. Armando, G. Costa, **A. Merlo**, L. Verderame, *Enabling BYOD through Secure Meta-Market*, in Proc. of the 7<sup>th</sup> ACM Conference on Security and Privacy in Wireless and Mobile

Networks, pp. 219-230, ACM NY, DOI: [10.1145/2627393.2627410](https://doi.org/10.1145/2627393.2627410).

- HPCS**  
2014 A. Merlo, M. Migliardi, P. Fontanelli, *On Energy-Based Profiling of Malware in Android*, in Proc. of the 9<sup>th</sup> International Conference on High Performance Computing Systems, pp. 535-542, IEEE, DOI: [10.1109/HPCSim.2014.6903732](https://doi.org/10.1109/HPCSim.2014.6903732).
- CISIS**  
2014 A. Merlo, M. Migliardi, D. Raso, E. Spadacini, *Optimizing Network Energy Consumption through Intrusion Prevention Systems*, in Proc. of the 7<sup>th</sup> International Conference on Computational Intelligence in Security for Information Systems, AISC, Vol. 299, 2014, pp. 505-515, Springer, DOI: [10.1007/978-3-319-07995-0\\_50](https://doi.org/10.1007/978-3-319-07995-0_50).
- IMIS**  
2014 M. Migliardi, A. Merlo, L. Caviglione, *A Survey of Green, Energy-Aware Security and Some of Its Recent Developments in Networking and Mobile Computing*, in Proc. of the 8<sup>th</sup> International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing, pp. 241-246, IEEE, DOI: [10.1109/IMIS.2014.30](https://doi.org/10.1109/IMIS.2014.30).
- INCoS**  
2014 M. Migliardi, A. Merlo, M. Tettamanti, *Reducing Energy Consumption in Prospective Memory Support System through Hierarchical Positioning Algorithm*, in Proc. of 6<sup>th</sup> International Conference on Intelligent Networking and Collaborative Systems, pp. 575-580, IEEE, DOI: [10.1109/INCoS.2014.47](https://doi.org/10.1109/INCoS.2014.47).
- AINA**  
2013 M. Migliardi, A. Merlo, *Energy Consumption Simulation of Different Distributed Intrusion Detection Approaches*, in Proc. of 27<sup>th</sup> 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 28<sup>th</sup> ACM Symposium on Applied Computing, Vol. 2, pp. 1852-1858, ACM, DOI: [10.1145/2480362.2480707](https://doi.org/10.1145/2480362.2480707).
- IFIP-SEC**  
2013 A. Armando, A. Merlo, L. Verderame, *An Empirical Evaluation of the Android Security Framework*, in Proc. of the 28<sup>th</sup> 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 8<sup>th</sup> 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 8<sup>th</sup> International Conference on High Performance Computing Systems, pp. 289-296, IEEE, DOI: [10.1109/HPCSim.2013.6641428](https://doi.org/10.1109/HPCSim.2013.6641428).
- EurAsia**  
2013 A. Armando, A. Castiglione, G. Costa, U. Fiore, A. Merlo, L. Verderame, I. You, *Trustworthy Opportunistic Access to the Internet of Services*, in Proc. of the 1<sup>st</sup> Information and Communication Technology Eurasia Conference, LNCS, Vol. 7804, 2013, pp. 469-478, Springer,

DOI: [10.1007/978-3-642-36818-9\\_52](https://doi.org/10.1007/978-3-642-36818-9_52).

- IFIP-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 27<sup>th</sup> 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.**
- TGC  
2012 A. Armando, G. Costa, **A. Merlo**, *Formal Modeling and Reasoning about the Android Security Framework*, in Proc. of the 7<sup>th</sup> International Symposium on Trustworthy Global Computing, LNCS Vol. 8191, 2013, pp 64-81, Springer. DOI: [10.1007/978-3-642-41157-1\\_5](https://doi.org/10.1007/978-3-642-41157-1_5).
- TAP  
2012 A. Armando, G. Pellegrino, R. Carbone, **A. Merlo**, D. Balzarotti, *From Model-checking to Automated Testing of Security Protocols: Bridging the Gap*, in Proc. of the 6<sup>th</sup> International Conference on Tests & Proofs LNCS Vol. 7305, 2012, pp 3-18, Springer, DOI: [10.1007/978-3-642-30473-6\\_3](https://doi.org/10.1007/978-3-642-30473-6_3).
- SGSec  
2012 A. Armando, R. Carbone, **A. Merlo**, *Formal Analysis of a Privacy-Preserving Billing Protocol*, in Proc. of the 1<sup>st</sup> Workshop on Smart Grid Security, LNCS 7823, 2013, pp. 108-119, Springer, DOI: [10.1007/978-3-642-38030-3\\_8](https://doi.org/10.1007/978-3-642-38030-3_8).
- ECL-IT  
2012 P. Maresca, **A. Merlo**, M. Arrigoni Neri, L. Stanganelli, *Using ETC framework in virtual laboratories for online students* in Proc. of the 7<sup>th</sup> 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 4<sup>th</sup> 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 34<sup>th</sup> 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 9<sup>th</sup> 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 6<sup>th</sup> 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).
- M-MPAC  
2010 V. Gianuzzi, **A. Merlo**, *Beaconing support in Publish-Subscribe Middleware for Vehicular Applications*, in Proc. of the 2<sup>nd</sup> 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 2<sup>nd</sup> 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).

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### Technical Reports (2)

- IEIIT  
2010b **A. Merlo**, G Papaleo, M. Aiello, C. Martini, *A taxonomy of WLAN attacks and countermeasures*, Tech. Rep. CNR-IEIIT/GE No. 1/2010, Jan. 2010.
- IEIIT  
2010a **A. Merlo**, A. Corana, *Analysis of multi-dimensional data on parallel and distributed computing systems*, Tech. Rep. CNR-IEIIT/GE No. 2/2010, Jan. 2010.

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### Ph.D. Thesis

- DISI  
2010 **A. Merlo**. *An architectural approach to the management of applications with QoS requirements on Grid*. Available at <http://www.disi.unige.it/dottorato/THESES/2010-06-MerloA.pdf>.

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### Newspaper 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.

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## Honors & Awards

### Best Paper Awards (3)

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)* [[IFIP-SEC 2012](#)].

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### Featured Articles (2)

Apr. 2014 The paper *A Denial of Service to UMTS networks* has been selected as Featured Article at the [IEEE Cyber Security Initiative](#).

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](#).

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### Technological Transfer Awards (4)

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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## Service to the profession

### Editorial Activity (5)

- 2016 - 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 (1)

- [HPCS 2017](#) 15<sup>th</sup> International Conference on High Performance Computing & Simulation, July 17-21, 2017, Genoa. <http://hpcs2017.cisedu.info>
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### Local Chair (1)

[AIXIA 2016](#) 15<sup>th</sup> International Conference of the Italian Association for Artificial Intelligence, Nov. 21-25, 2016.

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### Workshop Chair (7)

[SPCLOUD 2017](#) 7<sup>th</sup> International Workshop on Security and Performance in Cloud Computing, July 17-21, 2017, Genoa, Italy.

[SHPCS 2017](#) 13<sup>th</sup> International Workshop on Security and High Performance Computing, July 17-21, 2016, Genoa, Italy.

[SPCLOUD 2016](#) 6<sup>th</sup> International Workshop on Security and Performance in Cloud Computing, July 18-22, 2016, Innsbruck, Austria.

[SHPCS 2016](#) 12<sup>th</sup> International Workshop on Security and High Performance Computing, July 18-22, 2016, Innsbruck, Austria.

[SPCLOUD 2015](#) 5<sup>th</sup> International Workshop on Security and Performance in Cloud Computing, July 20-24, 2015, Amsterdam, the Netherlands.

[SHPCS 2015](#) 11<sup>th</sup> International Workshop on Security and High Performance Computing, July 20-24, 2015, Amsterdam, the Netherlands.

[SPCLOUD 2014](#) 4<sup>th</sup> International Workshop on Security and Performance in Cloud Computing, July, 21-25, Bologna, Italy.

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### Track Chair (4)

[ITA-SEC 2016](#) Track: Demos. 1<sup>st</sup> Italian Conference on Cyber Security.

[IMIS 2015](#) Track: Smart Spaces and Intelligent Environments, 9<sup>th</sup> International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing.

[IMIS 2014](#) Track Security, Trust and Privacy, 8<sup>th</sup> International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing.

[INCoS 2014](#) Track Mobile Collaborative Systems, 6<sup>th</sup> International Conference on Intelligent Networking and Collaborative Systems, Sep. 10-12, 2014, Salerno, Italy.

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### Session Chair (10)

- [HPCS 2016](#) Session: SHPCS I, 31<sup>st</sup> International Conference on High Performance Computing & Simulation, July 18-22, 2016, Innsbruck, Austria.
- [HPCS 2016](#) Session: SHPCS II, 31<sup>st</sup> International Conference on High Performance Computing & Simulation, July 18-22, 2016, Innsbruck, Austria.
- [HPCS 2016](#) Session: Tutorial V, 31<sup>st</sup> International Conference on High Performance Computing & Simulation, July 18-22, 2016, Innsbruck, Austria.
- [AsiaCCS 2016](#) Session: Mobile Security II, 11<sup>th</sup> ACM Asia Conference on Computer and Communications Security, May 30 - June 3, 2016, Xi'an, China.
- [HPCS 2015](#) Session: SHPCS I, 30<sup>th</sup> International Conference on High Performance Computing & Simulation, July 20-24, 2015, Amsterdam, the Netherlands.
- [HPCS 2014](#) Session: SHPCS II, 29<sup>th</sup> International Conference on High Performance Computing & Simulation, July, 21-25, Bologna, Italy.
- [CISIS \(Sec\) 2014](#) Session Infrastructure and Network Security II, 7<sup>th</sup> International Conference on Computational Intelligence in Security for Information Systems, June 25-27, 2014, Bilbao, Spain.
- [CISIS 2014](#) Session: Parallel Computing, 8<sup>th</sup> International Conference on Complex, Intelligent and Software Intensive Systems, July 2-4, 2014, Birmingham, UK.
- [HPCS 2013](#) Session High Performance Mobile Systems, Location-Based Services, and Applications in Ubiquitous Computing, 29<sup>th</sup> International Conference on High Performance Computing & Simulation, July 1-5, 2013, Helsinki, Finland.
- [AINA 2013](#) Session: Job Scheduling and Environment Sensing, 27<sup>th</sup> IEEE International Conference on Advanced Information Networking and Applications, March 25-28, 2013, Barcelona, Spain.

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### Journal Reviewer (10)

- 2016 - [ACM Transactions on Cyber-Physical Systems](#), ACM.
- 2016 - [The Journal of Supercomputing](#), ISSN: 0920-8542, Springer.
- 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.
- 

### TPC Membership (39)

- [MSPN 2017](#) 3<sup>rd</sup> International Conference on Mobile, Secure and Programmable Networking, June 29-30, 2017, Paris, France.
- [EUSPN 2017](#) 8<sup>th</sup> International Conference on Emerging Ubiquitous Systems and Pervasive Networks, Sep. 18-20, 2017, Lund, Sweden.
- [AINA 2017](#) 31<sup>st</sup> IEEE International Conference on Advanced Information Networking and Applications, Mar. 27-29, Taipei, Taiwan.
- [GPC 2017](#) 12<sup>th</sup> International Conference on Green, Pervasive and Cloud Computing, May 11-14, Cetara, Italy.
- [HPCS 2017](#) 32<sup>nd</sup> International Conference on High Performance Computing & Simulation, July 17-21, 2017, Genoa, Italy.
- [SPCLOUD 2017](#) 7<sup>th</sup> International Workshop on Security and Performance in Cloud Computing, July 17-21, 2017, Genoa, Italy.
- [SHPCS 2017](#) 13<sup>th</sup> International Workshop on Security and High Performance Computing, July 17-21, 2017, Genoa, Italy.
- [SAC 2017](#) 32<sup>nd</sup> ACM SIGAPP Symposium On Applied Computing, Apr. 3-7, 2017, Marrakech, Morocco.
- [ACM CCS MIST 2016](#) 8<sup>th</sup> ACM CCS International Workshop on Managing Insider Security Threats, In Conjunction with ACM CCS 2016, Oct. 24-28, 2016, Vienna, Austria.
- [WISTP 2016](#) 10<sup>th</sup> International Conference on Information Security Theory and Practice, Sep. 26-27, 2016, Heraklion, Crete, Greece.

- MobiSec 2016 2016 International Symposium on Mobile Internet Security, Jul. 14-15, 2016, Taichung, Taiwan.
- MSPN 2016 2<sup>nd</sup> International Conference on Mobile, Secure and Programmable Networking, June 1-3, 2016, Paris, France.
- EASyCoSe 2016 3<sup>rd</sup> International Workshop on Energy-Aware Systems, Communications and Security, March 23-25, 2016, Crans-Montana, Switzerland.
- HPCS 2016 31<sup>st</sup> International Conference on High Performance Computing & Simulation, July 18-22, 2016, Innsbruck, Austria.
- SPCLOUD 2016 6<sup>th</sup> International Workshop on Security and Performance in Cloud Computing, July 18-22, 2016, Innsbruck, Austria.
- SHPCS 2016 12<sup>th</sup> International Workshop on Security and High Performance Computing, July 18-22, 2016, Innsbruck, Austria.
- WISTP 2015 9<sup>th</sup> International Conference on Information Security Theory and Practice, Aug. 24-25, 2015, Heraklion, Crete, Greece.
- HPCS 2015 30<sup>th</sup> International Conference on High Performance Computing & Simulation, July 20-24, 2015, Amsterdam, the Netherlands.
- MSPN 2015 1<sup>st</sup> International Conference on Mobile, Secure and Programmable Networking, June 15-17, 2015, Paris, France.
- SPCloud 2015 5<sup>th</sup> Int. Workshop on Security, Privacy and Performance in Cloud Computing July 20-24, 2015, Amsterdam, the Netherlands.
- SHPCS 2015 10<sup>th</sup> International Workshop on Security and High Performance Computing Systems, July 20-24, 2015, Amsterdam, the Netherlands.
- INCOS 2015 7<sup>th</sup> International Conference on Intelligent Networking and Collaborative Systems, Sep. 2-4, 2015, Taipei, Taiwan.
- SPCloud 2014 4<sup>th</sup> International Workshop on Security, Privacy and Performance in Cloud Computing, July, 21-25, Bologna, Italy.
- HPCS 2014 29<sup>th</sup> International Conference on High Performance Computing & Simulation, July, 21-25, Bologna, Italy.
- NBiS 2014 17<sup>th</sup> International Conference on Network-based Information Systems, Sept. 10-12, 2014, Salerno, Italy.

- INCoS  
2014 6<sup>th</sup> International Conference on Intelligent Networking and Collaborative Systems, Sept. 10-12, 2014, Salerno, Italy.
- EASyCoSe  
2016 2<sup>nd</sup> International Workshop on Energy-Aware Systems, Communications and Security, Sept. 10-12, 2014, Salerno, Italy.
- IMIS  
2014 8<sup>th</sup> International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing, July 2-4, 2014, Birmingham, UK.
- CISIS  
2014 8<sup>th</sup> International Conference on Complex, Intelligent, and Software Intensive Systems, July 2-4, 2014, Birmingham, UK.
- SHPCS  
2014 9<sup>th</sup> International Workshop on Security and High Performance Computing Systems, July 25-29, 2014, Bologna, Italy.
- IAS  
2014 10<sup>th</sup> IEEE International Conference on Information Assurance and Security, November 27-29, 2014, Okinawa, Japan.
- NBiS  
2013 16<sup>th</sup> International Conference on Network-based Information Systems, Sept. 4-6, 2013, Gwangju, China.
- IFIP-SEC  
2013 28<sup>th</sup> IFIP International Information Security and Privacy Conference, July 8-10, 2013, Auckland, New Zealand.
- IAS  
2013 9<sup>th</sup> IEEE International Conference on Information Assurance and Security, December 4-6, 2013, Yasmine Hammamet, Tunisia.
- SHPCS  
2013 8<sup>th</sup> International Workshop on Security and High Performance Computing Systems, July 1-5, 2013, Helsinki, Finland.
- EASyCoSe  
2013 1<sup>st</sup> International Workshop on Energy-Aware Systems, Communications and Security, March 25-28, 2013, Barcelona, Spain.
- IAS  
2012 8<sup>th</sup> IEEE International Conference on Information Assurance and Security, November 21-23, 2012, Sao Carlos, Brazil.
- SHPCS  
2012 7<sup>th</sup> International Workshop on Security and High Performance Computing Systems, July 2-6, 2012, Madrid, Spain.
- IAS  
2011 7<sup>th</sup> IEEE International Conference on Information Assurance and Security, December 5-8, 2011, Malacca, Malaysia.
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### **Member of Research Commissions (1)**

Mar. 2016 - Member of the Research Commission at DIBRIS, University of Genoa, for the research program [Security and Safety of Critical Systems](#).

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### **Member of Selection Boards (8)**

Mar. 2016 Member of the selection board for thesis defenses at [2<sup>nd</sup> level postgraduate Master in Cyber Security and Data Protection](#) (I cycle), University of Genoa.

Feb. 2016 Member of the commission for the selection of alumni for the [2<sup>nd</sup> level postgraduate Master in Cyber Security and Data Protection](#) (II cycle), University of Genoa.

Jan. 2016 Member of the selection board for the research grant N. 44, D.R. n. 9828, 16.11.2015, University of Genoa.

Jan. 2016 Member of the selection board for the research grant, N. 45, D.R. n. 9828, 16.11.2015, University of Genoa.

Nov. 2015 Member of the selection board for the [CLUSIT prize 2015](#), a prize for innovation in Cyber Security.

Sep. 2015 President of the selection board for the admission at [Istituto Superiore di Studi in Tecnologie della Comunicazione e dell'Informazione \(ISICT\)](#), a.y. 2015/16.

Apr. 2014 Member and secretary of the selection board for the public selection for a fixed-term Assistant Professor position, RTD-A, s.s.c. ING-INF/05, at E-Campus University, D.P.C.T.O. Feb. 12, 2014, n. 67/14.

May 2012 Member of the selection board for the research grant, N. 34, D.R. n. 367, 23.3.2012, University of Genoa.

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### **Member of Management Committees (2)**

Mar. 2016 - Member of the management committee for Database courses at [Telecommunication School for Italian Armed Forces](#), Chiavari, Italy.

Oct. 2015 - Member of the management committee at [2<sup>nd</sup> level postgraduate Master in Cyber Security and Data Protection](#), University of Genoa.

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### Event Organization (3)

- 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.
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### Conference attendance (22)

- [HPCS 2016](#) 31<sup>th</sup> International Conference on High Performance Computing & Simulation, Jul. 18-22, 2016, Innsbruck, Austria.
- [AsiaCCS 2016](#) 11<sup>th</sup> ACM Asia Conference on Computer and Communications Security, May 30 - Jun. 3, 2016 Xi'an, China.
- [AINA 2016](#) 30<sup>th</sup> IEEE International Conference on Advanced Information Networking and Applications, Mar. 23-25, 2016, Crans-Montana, Switzerland.
- [3GPCIC 2015](#) 10<sup>th</sup> International Conference on P2P, Parallel, Grid, Cloud and Internet Computing, Nov. 4-6, 2015, Krakow, Poland.
- [CCS 2015](#) 22<sup>nd</sup> ACM Conference on Computer and Communications Security, Oct. 12-16, 2015, Denver, Colorado, USA.
- [IMIS 2015](#) 9<sup>th</sup> International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing, Jul. 8-10, 2015, Blumenau, Brazil.
- [HPCS 2015](#) 30<sup>th</sup> International Conference on High Performance Computing & Simulation, Jul. 20-24, 2015, Amsterdam, the Netherlands.
- [WiSec 2014](#) 7<sup>th</sup> ACM Conference on Security and Privacy in Wireless and Mobile Networks, Jul. 23-25, 2014, Oxford, UK.
- [HPCS 2014](#) 9<sup>th</sup> International Conference on High Performance Computing Systems, Jul. 21-25, 2014, Bologna, Italy.
- [IMIS 2014](#) 8<sup>th</sup> International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing, Jul. 2-4, 2014, Birmingham, UK.

- INCoS  
2014 6<sup>th</sup> International Conference on Intelligent Networking and Collaborative Systems, Sep. 10-12, 2014, Salerno, Italy.
- CISIS  
2014 8<sup>th</sup> International Conference on Complex, Intelligent and Software Intensive Systems, Jul. 2-4, 2014, Birmingham, UK.
- CISIS-Sec  
2014 7<sup>th</sup> International Conference on Computational Intelligence in Security for Information Systems, Jun. 25-27, 2014, Bilbao, Spain.
- HPCS  
2013 8<sup>th</sup> International Conference on High Performance Computing Systems, Jul. 1-5, Helsinki, Finland.
- AINA  
2013 27<sup>th</sup> IEEE International Conference on Advanced Information Networking and Applications, Mar. 25-28, 2013, Barcelona, Spain.
- SAC 2013 28<sup>th</sup> ACM Symposium on Applied Computing, Mar. 18-22, 2013, Coimbra, Portugal.
- SEC  
2012 27<sup>th</sup> IFIP TC 11 International Information Security and Privacy Conference, Jun. 3-6, 2012, Heraklion, Crete, Greece.
- IAS  
2011 7<sup>th</sup> International Conference on Information Assurance and Security, Dec. 4-8, Malacca, Malaysia.
- IAS  
2010 6<sup>th</sup> International Conference on Information Assurance and Security, Aug. 23-25, 2010, Atlanta (GA), USA.
- INGRID  
2010 5<sup>th</sup> International Workshop on Distributed Collaborative Laboratories: Instrumenting the Grid, May 12-14, 2010, Poznan, Poland.
- INGRID  
2009 4<sup>th</sup> International Workshop on Distributed Collaborative Laboratories: Instrumenting the Grid, Apr. 1-3, 2009, Alghero, Italy.
- INGRID  
2008 3<sup>rd</sup> International Workshop on Distributed Collaborative Laboratories: Instrumenting the Grid, Apr. 9-11, 2008, Ischia, Italy.
- GADA  
2006 1<sup>st</sup> International Conference on Grid computing, high-performance and Distributed Applications, Oct. 29 - Nov. 3, 2006, Montpellier, France.

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## Grants (8)

Nov. 2014 - Oct. 2016 BYODCert Project, funded by the University of Genoa. Total funding: € 16.000. Principal Investigator.

- Aug. 2014 - Jul. 2016 EduOpen Project, funded by the Italian Ministry of Education, University and Research (MIUR). Faculty participant. <http://en.eduopen.org/>
- Jan. 2014 - Dec. 2016 Smart Intelligent and Eco-friendly Mobility (MIE) Project, funded by the Italian Ministry of Education, University and Research (MIUR). Total funding: € 7.782.800. Faculty participant. [http://www.s3lab.polito.it/progetti/progetti\\_in\\_corso/mie](http://www.s3lab.polito.it/progetti/progetti_in_corso/mie)
- Mar. 2013 - Feb. 2016 PLUG-IN Project, funded by the Italian Ministry of Education, University and Research (MIUR). Total funding: € 3.408.950. Faculty participant. <http://www.siitscpa.it/index.php/progetti/2011-09-24-14-26-55/plug-in>.
- Oct. 2012 - Sep. 2015 Security Horizons (PRIN Project no. 2010XSEMLC), funded by the Italian Ministry of Education, University and Research (MIUR). Total funding: € 572.157. Faculty participant. <http://people.unica.it/bart/2012/10/24/security-horizons/>.
- Nov. 2011 - Mar. 2013 Security and Cloud Computing Project, POR Liguria, funded by Liguria Region. Total funding: € 150.000. Faculty participant. [https://sites.google.com/a/manydesigns.com/cloud\\_security/](https://sites.google.com/a/manydesigns.com/cloud_security/).
- Nov. 2010 - Mar. 2014 SPaCloS Project, Project no. 257876, FP7-ICT-2009-5, ICT-2009.1.4: Trustworthy ICT, funded by EC. Total funding: € 3.610.000. Faculty participant. <http://www.spacios.eu>.
- Mar. 2010 - Feb. 2012 SINTESIS Project, funded by the Italian Ministry of Education, University and Research (MIUR). Total funding: € 3.600.00. Faculty participant. <http://www.siitscpa.it/index.php/progetti/2011-09-24-14-26-54/sintesis>.

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## Technological Transfer

- Talos **Co-founder** and **Chief Technology Officer** of the startup Talos s.r.l.s. (<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 [CCS MIST 2015a].
- MAVeriC The research results presented in [TGC 2012], [JoWUA 2014b], [ETAPS 2015] and [CCS 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], [ACM SAC 2013], [ACM WiSec 2014], [Computer 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 [\[ICMCIS 2016\]](#).

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### Tools for Research (14)

- TEA The Trusted host-based card Emulation for Android (TEA) [\[HPCS 2016\]](#) is a secure implementation of the THCE paradigm described in [\[HPCS 2015b\]](#).
- BYODCert BYODCert is a cloud-based solution for the certification of mobile devices in BYOD scenarios, developed in the project [\[BYODCert\]](#).
- BrightPass BrightPass is a user authentication system for Android that has been developed in cooperation with the University of Science and Technology of Oran Mohamed Boudiaf (Algeria), the University of Constantine (Algeria), the University of Padua, and the University of Salerno. More information on BrightPass can be found in [\[TDSC 2016\]](#).
- FLEX FLEX is a framework for authenticating mobile code. It has been developed in cooperation with the New York Institute of Technology. More information can be found in [\[AsiaCCS 2016\]](#). FLEX source code is available at <http://cl.ly/1L3n2P1i2F2d>.
- SKETURE SKETURE is a tool for the analysis of network packets that generates statistical reports on the behavior of network nodes, but granting the user's privacy. The tool is described in [\[CCS MIST 2015b\]](#) and [\[JHSN 2016\]](#), and it has been developed in cooperation with the University of Jordan.
- SCP The Safe Content Provider is an Android component for runtime management of SCPIntents. More information can be found in [\[CSF 2015\]](#). The source code of SCP is available at <https://github.com/SCPTeam/Safe-Component-Provider>.
- MLM The *Middle-Level Measurements* (MLM) is a kernel module allowing to evaluate the energy consumption of both WI-FI and CPU in Android, by interpolating energy consumption data coming from different energy sinks provided by the Android Linux kernel. The description and the usage of MLM can be found in [\[HPCS 2014\]](#) and [\[JCS 2015\]](#).
- LLM The Low-Level Measurements (LLM) is a kernel module allowing to measure the energy consumption of CPU on Android devices, by retrieving energy consumption data directly from the battery driver. The description and the usage of LLM is described in [\[HPCS 2013\]](#).
- ES The Energy Simulator (ES) is a Java-based tool for simulating the energy consumption in wired and wireless networks. Simulations based on ES has been described in [\[AINA 2016\]](#), [\[IGPL 2016\]](#), [\[JHSN 2013\]](#) and [\[AINA 2013\]](#).
- MKM+KCT The Monitoring Kernel Module is a kernel module for syscall interception. The Kernel Call Tester is an Android library. They have been used for research activities re-

ported in [PMC 2016], [IJCIP 2014] and [IFIP-SEC 2013]. The source code is available at <https://github.com/ai-lab/SEAndroid-Assessment>.

**SoRTGrid** SoRTGrid is a framework for the detection of Grid resources and the scheduling of soft real-time jobs. More information on SoRTGrid can be found in [CCPE 2011], [RIV 2010] and [DISI 2010].

**SoRTSim** SoRTSim is a discrete-event simulator of Grid networks. It is described in [RIE 2012] and [DISI 2010].

**GridWalker** GridWalker is a tool for visualizing Grid resources. It is described in [RIS 2011].

**GEDA** The Grid Explorer for Distributed Applications is a tool for the discovery of resources for Grid applications. It works on Grids based on Globus Toolkit 3 or 4. Information on GEDA can be found in [GER 2008], [GADA 2006] and [DISI 2010].

## Teaching Activity

### Courses (71)

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

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)	Tot. yrs.
M.Sc. Computer Science	Data Privacy	6	2016/17	now	1
B. Eng. Computer Engineering	Android Programming	6	2014/15	now	3
Ph.D. Computer Science	Mobile Security	3	2014/15	now	3
Postgrad. Diploma in Cyber Security	Web Security	3	2014/15	now	3
Undergrad. Diploma in ICT (ITS-ICT)	MySQL Programming	6	2014/15	now	3
Undergrad. Diploma in ICT (ITS-ICT)	Web Programming	6	2014/15	2014/15	1
<i>Tirocinio Formativo Assistito</i>	Found. of Comp. Science	6	2014/15	2014/15	1
<i>Percorsi Abilitativi Speciali</i>	Found. of Comp. Science	6	2014/15	2014/15	1

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

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)	Tot. yrs.
Vocat. Training in ICT Systems	ASP.NET Programming	6	2016/17	now	1
Vocat. Training in ICT Systems	Java Programming	6	2016/17	now	1
Vocat. Training in ICT Systems	Basics of Programming	6	2014/15	now	3
Vocat. Training in ICT Systems	C/C++ Programming	6	2014/15	now	3
Vocat. Training in ICT Systems	Java Programming	6	2011/12	2014/15	4
Postgrad. Diploma in ICT Systems	Computer Security	6	2013/14	2013/14	1
Postgrad. Diploma in ICT Systems	Java Programming	6	2013/14	2013/14	1
Postgrad. Diploma in ICT Systems	Databases	6	2013/14	2013/14	1
Postgrad. Diploma in ICT Systems	Information Systems	6	2013/14	2013/14	1

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

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)	Tot. yrs.
Postgraduate Diploma in Cyber Security	Web Security	3	2014/15	2014/15	1

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

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)	Tot. yrs.
B. Eng. Computer Engineering	Web Programming	6	2010/11	2013/2014	4

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

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)	Tot. yrs.
M.Eng. Computer Engineering	Network Security	6	2014/15	2014/15	1
M.Eng. Computer Engineering	Computer Security	6	2014/15	2014/15	1
M.Eng. Computer Engineering	Java Programming	12	2013/14	2014/15	2
B.Eng. Computer Engineering	Computer Architecture	6	2011/12	2013/14	3
B.Eng. Computer Engineering	Operating Systems	6	2011/12	2013/14	3
B.Eng. Computer Engineering	Found. of Computer Science	12	2011/12	2013/14	3
B.Eng. Civil Engineering	Found. of Computer Science	6	2011/12	2013/14	3
B.Eng. Mechanical Engineering	Found. of Computer Science	6	2011/12	2013/14	3
B.Eng. Computer Engineering	Software Engineering	6	2011/12	2011/12	1
B.Eng. Computer Engineering	Databases	6	2011/12	2011/12	1
BSc. Computer Engineering	Artificial Intelligence	6	2011/12	2011/12	1

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

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)	Tot. yrs.
M. Eng. Computer Engineering	Computer Security	6	2009/10	2010/11	2
B. Eng. Computer Engineering	Web Programming	6	2009/10	2009/10	1

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

Degree	Course Taught	ECTS	From: (a.y.)	To: (a.y.)	Tot. yrs.
MSc. Computer Science	Distributed Operating Systems	6	2006/07	2007/08	2
BSc. Computer Science	Operating Systems	6	2006/07	2009/10	4

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## Supervision

### PhD. Supervision (2)

2017-2019 Doctoral Supervisor of Simone Aonzo (Cycle XXXII), DIBRIS, University of Genoa.

2013-2016 Doctoral Supervisor of Luca Verderame (Cycle XXVIII), DIBRIS, University of Genoa.

### **PostGraduate Diplomas Supervision (7)**

- 2015-2016 Advisor of 3 theses of the Postgraduate Diploma in *Cyber Security and Data Protection*, University of Genoa.
- 2013-2014 Advisor of 4 theses at the Postgraduate Diploma in *ICT Systems*, Telecommunication School for Italian Armed Forces, Chiavari, Italy.
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### **Master Theses Supervision (24)**

- 2010 - Advisor of 16 M.Eng. Theses, course of Computer Engineer, DIBRIS, University of Genoa.
- 2011 - 2014 Advisor of 3 M.Eng. Theses, course of Computer Engineer, E-Campus University.
- 2006 - 2010 Advisor of 6 M.Sc. Theses, course of Computer Science, DISI, University of Genoa.
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### **Bachelor Theses Supervision (189)**

- 2010 - Advisor of 155<sup>1</sup> B.Eng. Theses, course of Computer Engineer, DIBRIS, University of Genoa.
- 2011 - 2014 Advisor of 19 B.Eng. Theses, course of Computer Engineer, E-Campus University.
- 2006 - 2010 Advisor of 15 B.Sc. Theses, course of Computer Science, DISI, University of Genoa.
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Last updated: April 18, 2017  
by [Alessio Merlo](#)

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<sup>1</sup>From a.y. 2010/2011 I am advisor of all B.Eng. theses in Computer Engineering at University of Genoa.