

Curriculum Vitæ
Luca Ferretti

Personal Information

Name Surname	Luca Ferretti
Email	luca.ferretti@unimore.it
Home page	https://weblab.ing.unimo.it/people/ferretti
Citizenship	Italian

Education and qualifications

2013 → 2015	Phd in Information and Communication Technologies (ICT) Department of Engineering "Enzo Ferrari" University of Modena and Reggio Emilia (Italy) <i>Thesis: "Confidentiality and Integrity for cloud database services"</i> <i>Advisor: Prof. Michele Colajanni</i> <i>Interests: information security, cloud computing services</i>
2012	Qualification to practice as an Information Engineer (sec. A) University of Modena and Reggio Emilia
2012	Master's degree in Computer Engineering and Science Department of Engineering "Enzo Ferrari" University of Modena and Reggio Emilia (Italy) Graduation mark: 110/110 cum laude
2009	Bachelor's degree in Computer Engineering and Science Department of Engineering "Enzo Ferrari" University of Modena and Reggio Emilia (Italy) Graduation mark: 110/110

Professional and research activities

10/2018 → Now	Assistant Professor (RTDa) Department of Engineering "Enzo Ferrari" University of Modena and Reggio Emilia (Italy)
01/2016 → 10/2018	Research Assistant Department of Engineering "Enzo Ferrari" University of Modena and Reggio Emilia (Italy)
01/2015 → 07/2015	Visiting researcher Donald Bren School of Information & Computer Science (ICS), University of Irvine (UCI), CA, USA Research activity: secure two-party protocols for the computation of genomic distance metrics
	Teaching (Academic)
2019	• <i>co-teaching "Algorithms and Programming Languages" (Bachelor's degree course in Computer Science and Engineering) at University of Modena and Reggio Emilia</i>
2018, 2019	• <i>postgraduate master course for "Digital forensics and cyber technologies" of University of Modena and Reggio Emilia</i>
2017 → 2019	• <i>specialization course on cyber security "CyberAcademy" of University of Modena and Reggio Emilia</i>
2016, 2018	• <i>co-teaching "Network protocols and architectures" (Bachelor's degree course in Computer Science) at University of Modena and Reggio Emilia</i>
2018	• <i>PhD course on "Blockchain and Smart contracts" of the Cyber Physical Systems PhD course of the University of Messina</i>
	Teaching assistanship (Academic)
2014 → 2019	• <i>"Networked systems and services" (Master's degree course in Computer Science and Engineering) at University of Modena and Reggio Emilia</i>
2013 → 2015	• <i>"Network protocols and architectures" (Bachelor's degree course in Computer Science) at University of Modena and Reggio Emilia</i>
	Teaching (other)
2018	• <i>"Introduction to Cyber Security" course at the regional course for "Project Manager for integration of innovative technologies in industrial productions"</i>

<p>2014 → 2018</p> <p>2018</p> <p>2015</p> <p>2016 → 2020 (ongoing)</p> <p>2015 → 2016</p>	<p>Academic service</p> <ul style="list-style-type: none"> reviewer for IEEE Transaction on Information Forensics and Security, IEEE Transactions on Cloud Computing, Elsevier Information Sciences, Elsevier Future Generation Computer Systems, IEEE Conference on Cloud Computing Technology and Science, EURASIP Journal on Information Security co-organizer IEEE Smart Industries Workshop (co-located with IEEE Smart Computing Conference) publicity chair for ACM Cloud Computing Security Workshop (co-located with ACM Conference on Computer and Communications Security) <p>Research projects</p> <ul style="list-style-type: none"> ASGARD H2020 – Analysis System for Gathered Raw Data SAMMClouds: Secure and Adaptive Management of Multi-Clouds
---	--

Awards

<p>05/2017</p> <p>03/2016</p> <p>03/2015</p> <p>02/2014</p> <p>08/2013</p>	<ul style="list-style-type: none"> Award for the best PhD theses of the Information and Communication Technologies PhD School of University of Modena and Reggio Emilia Certificate of merit for national and international research from University of Modena and Reggio Emilia Won competition for the faster protocol to compute “secure two-party comparison between genomic data” at Idash privacy & security workshop Spotlight paper “<i>Distributed, concurrent and independent access to encrypted cloud databases</i>”, IEEE Trans. Parallel and Distributed Systems Best paper award at the 7th Int’l Conf. Emergin Security Information, Systems and Technologies
---	---

Languages

<p>Listening, Reading:</p> <p>Writing, Speaking:</p> <p>Native language:</p>	<p>English</p> <p>Fluent</p> <p>Advanced</p> <p>Italian</p>
--	---

Publications

<p>2012 → 2018</p>	<ul style="list-style-type: none"> Luca Ferretti, Mirco Marchetti, Michele Colajanni “<i>Fog-based secure communications for low power IoT devices</i>” ACM Trans. on Internet Technology (<i>accepted, to appear</i>) Dario Stabili, Luca Ferretti, Mirco Marchetti, “<i>Analyses of secure automotive communication protocols and their impact on vehicles life-cycle</i>”, Proc. Fourth IEEE Int’l Conf. Smart Computing, Taormina, Italy, June 2018 Giovanni Apruzzese, Michele Colajanni, Luca Ferretti, Alessandro Guido, Mirco Marchetti “<i>On the effectiveness of machine and deep learning for cyber security</i>” Proc. 10th International Conference on Cyber Conflict (CyCon), Tallin, Estonia, May-June 2018 Luca Ferretti, Mirco Marchetti, Mauro Andreolini, Michele Colajanni, “<i>A symmetric cryptographic scheme for data integrity verification in cloud databases</i>” Elsevier Information Sciences, Vol. 422, January 2018 Luca Ferretti, Mirco Marchetti, Michele Colajanni, “<i>Verifiable delegated authorization for user-centric architectures and an Oauth2 implementation</i>”, Proc. 41st IEEE Int’l Conf. on Computer Software and Applications, Turin, Italy, July 2017 Luca Ferretti, Michele Colajanni, Mirco Marchetti, “<i>Implementation of verified set operation protocols based on bilinear accumulators</i>” Proc. 15th Int.’l Conf. Cryptology and Network Security, Milan, Italy, Nov. 2016 Luca Ferretti, Michele Colajanni, Mirco Marchetti, “<i>Guaranteeing correctness of bulk operations in outsourced databases</i>” Proc. 30th IFIP WG 11.3 Working Conf. Data and Applications Security and Privacy, Trento, Jul. 2016 A. Andreoli, L. Ferretti, M. Marchetti, M. Colajanni, “<i>Enforcing correct behavior without trust in cloud key-value databases</i>”, Proc. Second IEEE Int’l Conf. Cyber Security and Cloud Computing, New York, USA, Nov. 2015 Luca Ferretti, Fabio Pierazzi, Michele Colajanni, Mirco Marchetti, “<i>Scalable architecture for multi-user encrypted SQL operations on cloud database services</i>”, IEEE Trans Cloud Computing, Vol.2, No.4, 2014 Luca Ferretti, Fabio Pierazzi, Michele Colajanni, Mirco Marchetti, Marcello Missiroli, “<i>Efficient detection of unauthorized data modification in cloud databases</i>”,
---------------------------	--

- Proc. 19th IEEE Symp. Computers and Communications, Madeira, PT, Jun. 2014*
- Luca Ferretti, Fabio Pierazzi, Michele Colajanni, Mirco Marchetti,
"Performance and cost evaluation of an adaptive encryption architecture for cloud databases",
IEEE Trans. Cloud Computing, Vol.2, No.2, 2014
 - Luca Ferretti, Michele Colajanni, Mirco Marchetti,
"Distributed, concurrent and independent access to encrypted cloud databases",
IEEE Trans. Parallel and Distributed Systems, vol.25, no.2, 2014 (selected as spotlight paper)
 - Luca Ferretti, Michele Colajanni, Mirco Marchetti,
"Access control enforcement on query-aware encrypted cloud databases",
Proc. Fifth IEEE Int'l Conf. Cloud Computing Technology and Science, Bristol, UK, Dec. 2013
 - Luca Ferretti, Fabio Pierazzi, Michele Colajanni, Mirco Marchetti,
"Security and confidentiality solutions for public cloud database services",
Proc. Seventh Int'l Conf. Emerging Security Information, Systems and Technologies, Barcellona, Spain, Aug. 2013 (best paper award)
 - Luca Ferretti, Michele Colajanni, Mirco Marchetti, Adriano Enrico Scaruffi,
"Transparent access on encrypted data distributed over multiple cloud infrastructures",
Proc. 4th Int'l Conf. Cloud Computing, GRIDs, and Virtualization, Valencia, Spain, May-Jun. 2013
 - Luca Ferretti, Michele Colajanni, Mirco Marchetti,
"Supporting security and consistency for cloud database",
Proc. Fourth Int'l Symp. Cyberspace Safety and Security, Melbourne, Australia, Dec. 2012