

# LEONARDO QUERZONI

## Curriculum Vitae

Roma, 30/7/2023

### I – General Information

Full Name LEONARDO QUERZONI  
Date of Birth -----  
Place of Birth -----  
Citizenship -----  
Permanent Address -----  
Mobile Phone Number -----  
E-mail -----  
Spoken Languages Italian, English

### II – Education

Type	Year	Institution	Notes
Laurea degree	2003	Università degli Studi di Roma “La Sapienza”	Laurea in Ingegneria Informatica (Engineering in Computer Science) - 108/110 – Title: “Progetto e simulazione di un sistema di comunicazione content based publish/subscribe”
PhD	2007	Università degli Studi di Roma “La Sapienza”	Ph.D. in Engineering in Computer Science [Dottorato di Ricerca in Ingegneria Informatica] – Title: “Techniques for Efficient Event Routing” – Co-tutors: Prof. Roberto Baldoni, Prof. Ricardo Jiménez-Peris – External reviewers: Prof. Bettina Kemme, Prof. Anne-Marie Kermarrec, Prof. Philip K. McKinley

### III – Appointments

#### III.A – Academic Appointments

Start	End	Institution	Position
2022	--	Università degli Studi di Roma “La Sapienza”	Coordinator of the PhD Program in Cybersecurity, a program in collaboration with Luiss University.
2020	--	Università degli Studi di Roma “La Sapienza”	Associate professor at Dipartimento di Ingegneria Informatica Automatica e Gestionale “Antonio Ruberti” (SSD ING-INF/05)
2008	2020	Università degli Studi di Roma “La Sapienza”	Ricercatore a tempo indeterminato at Dipartimento di Ingegneria Informatica Automatica e Gestionale “Antonio Ruberti” (SSD ING-INF/05)
2007	2008	Università degli Studi di Roma “La Sapienza”	Research fellow (assegnista di ricerca) at Dipartimento di Ingegneria Informatica Automatica e Gestionale “Antonio Ruberti” – Research topic: “Event-based middleware for dynamic distributed systems”
2016	2016	ENSAI - Rennes	Visiting professor (1 month)
2011	2011	INRIA Rhône-Alpes - Grenoble	Visiting professor (3 months)
2005	2005	Universidad Politécnica de Madrid	Student Internship – Supervisor: Prof. Ricardo Jiménez-Péris (8 months)

### III.B – Other appointments

- **Steering Committee Member** for the ACM EuroSys conference, since May 2023.
- **President** of the national competence center CYBER 4.0, since February 2022. The competence center is an association with 45 affiliates (universities, industries and public administration bodies) supported by the Ministry of Enterprises and Made in Italy (MIMIT) with a cumulative grant (7 years) of EUR 20M.
- Member of the Technical and Scientific Board for Fondazione SERICS, since January 2023.
- **Spoke Leader** (Spoke 9) in the SERICS PNRR PE7 project. Since January 2023. Spoke 9 encompasses 4 subprojects, 9 affiliates (universities, research centers and large industries), and a cumulative budget of EUR 7M.
- Member of the Scientific Board of Accademia Cybersicurezza Lazio (the Cybersecurity Academy from Lazio's regional administration), since October 2022.
- **Rector's delegate for cybersecurity** at Sapienza University of Rome, since June 2020.
- **General co-chair** for the 18th ACM EUROSYS Conference, 2023.
- **General co-chair** for the 2022 edition of the Italian Conference on Cybersecurity ITASEC.
- Publication co-chair for the 7th European Symposium on Security and Privacy (EuroS&P), 2022.
- **Steering Committee member** for the ACM International Conference on Distributed and Event-based Systems (DEBS), since 2020.
- **Program Committee Co-Chair** for the 13th ACM International Conference on Distributed and Event-based Systems (DEBS), 2019.
- Member of the Test-of-Time Award Committee for the 13th ACM International Conference on Distributed and Event-based Systems (DEBS), 2019.
- From 2017 to 2020 he was regularly invited to the **Cyber Security Steering Committee** meetings of Assolombarda Confindustria Milano Monza e Brianza.
- From 2016 to 2019, he served as a representative at ECSO (European Cyber Security Organisation) of CINI (Consorzio Interuniversitario per l'Informatica).
- From 2015 to 2017, he was a member of the Data and Business Ethics Board for the SSIX Project (EU H2020) as an independent expert.
- Doctoral Symposium co-chair for the 11th ACM International Conference on Distributed and Event-based Systems (DEBS), 2017.
- Doctoral Symposium co-chair for the 10th ACM International Conference on Distributed and Event-based Systems (DEBS), 2016.
- **General chair** for the 18th International Conference on Principles of Distributed Systems (OPODIS), 2014.
- Co-chair of the First International Workshop on Big Data Analytics for Security (DASec), 2014.
- Co-chair of the First International Workshop on Algorithms and Models for Distributed Event Processing (AlMoDEP), 2011.
- Publicity co-chair for the 4th ACM International Conference on Distributed Event Based Systems (DEBS), 2010.
- **Member of the board for the PhD program in Engineering in Computer Science** at Sapienza University of Rome, since 2008
- Organizing co-chair for the 2nd International Conference on Distributed Event Based Systems (DEBS), 2008.
- Doctoral Symposium chair for the 7th European Dependable Computing Conference (EDCC), 2007.
- Symposium Information System co-chair for the 26th International Symposium on Reliable Distributed Systems (SRDS), 2007.

## IV – Teaching experience

### IV.A – Teaching experience in Bachelor and Master programs

Acad. year.	Institution	Credits	Course
2022/2023	Università degli Studi di Roma “La Sapienza”	15	Malware Analysis and Incident Forensics (6 CFU)
			Sistemi di Calcolo (6 CFU)
			Laboratorio di applicazioni software e sicurezza informatica (3 CFU)
2021/2022	Università degli Studi di Roma “La Sapienza”	15	Malware Analysis and Incident Forensics (6 CFU)
			Sistemi di Calcolo (6 CFU)
			Laboratorio di applicazioni software e sicurezza informatica (3 CFU)
2020/2021	Università degli Studi di Roma “La Sapienza”	15	Malware Analysis and Incident Forensics (6 CFU)
			Sistemi di Calcolo (6 CFU)
			Web Security and Privacy (3 CFU)
2019/2020	Università degli Studi di Roma “La Sapienza”	9	Malware Analysis and Incident Forensics (6 CFU)
			Laboratorio di applicazioni software e sicurezza informatica (3 CFU)
2018/2019	Università degli Studi di Roma “La Sapienza”	12	Malware Analysis and Incident Forensics (6 CFU)
			Distributed Systems (6 CFU)
2017/2018	Università degli Studi di Roma “La Sapienza”	9	Laboratorio di applicazioni software e sicurezza informatica (3 CFU)
			Systems and enterprise security (6 CFU)
2016/2017	Università degli Studi di Roma “La Sapienza”	9	Laboratorio di sicurezza informatica (3 CFU)
			Systems and enterprise security (6 CFU)
2015/2016	Università degli Studi di Roma “La Sapienza”	9	Laboratorio di sicurezza informatica (3 CFU)
			Systems and enterprise security (6 CFU)
2014/2015	Università degli Studi di Roma “La Sapienza”	9	Elective in Architectures and Distributed Systems (6 CFU)
			Progetto di Reti e Sistemi Informatici (3 CFU)
2013/2014	Università degli Studi di Roma “La Sapienza”	9	Elective in Architectures and Distributed Systems (6 CFU)
			Progetto di Reti e Sistemi Informatici (3 CFU)
2012/2013	Università degli Studi di Roma “La Sapienza”	9	Elective in Architectures and Distributed Systems (6 CFU)
			Progetto di Reti e Sistemi Informatici (3 CFU)
2011/2012	Università degli Studi di Roma “La Sapienza”	12	Elective in Architectures and Distributed Systems (6 CFU)
			Sistemi Distribuiti (6 CFU)
2010/2011	Università degli Studi di Roma “La Sapienza”	9	Elective in Architectures and Distributed Systems (6 CFU)
			Fondamenti di Informatica (3 CFU)
2009/2010	Università degli Studi di Roma “La Sapienza”	6	Fondamenti di Informatica I (6 CFU)
2008/2009	Università degli Studi di Roma “La Sapienza”	15	Sistemi Distribuiti (5 CFU)
			Fondamenti di Informatica (10 CFU)
2007/2008	Università degli Studi di Roma “La Sapienza”	6	Calcolatori Elettronici (6 CFU)
2006/2007	Università degli Studi di Roma “La Sapienza”	6	Calcolatori Elettronici (6 CFU)

#### IV.B – Teaching experience in PhD programs

Since 2008 he has tutored the following PhD students:

- Adriano Cerocchi – CEO at Over Technologies S.p.A, Rome, Italy
- Fabio Petroni – CTO at Samaya AI, London, UK
- Nicolò Rivetti di Val Cervo – National Cybersecurity Agency, Italy
- Claudio Ciccotelli – National Cybersecurity Agency, Italy
- Serena Ferracci – Leonardo Company SpA
- Pietro Borrello – Apple, USA.
- Fiorella Artuso – PhD student at Università degli Studi di Roma “La Sapienza”
- Francesca Console – PhD student at Università degli Studi di Roma “La Sapienza”
- Patrizia Carello – PhD student at Università degli Studi di Roma “La Sapienza”
- Cristian Assaiante – PhD student at Università degli Studi di Roma “La Sapienza”

#### IV.C – Other teaching duties

- In 2019 and 2020 he was coordinator of the Sapienza node for the **Cyberchallenge.IT program**, organized by CINI Cyber Security National Laboratory.
- Since 2018 he is lecturer in the master “Sicurezza dell’informazione e informazione strategica” at Università degli Studi di Roma “La Sapienza”
- In 2015 and 2016 he was lecturer for the course "Stream processing for big data applications" at *Scuola di formazione del Sistema di informazione per la Sicurezza della Repubblica*.
- In 2011 and 2012 he was co-lecturer for the course on “Metodologie e tecniche di sicurezza” within the “Master in Interoperabilità per la Pubblica Amministrazione e le Imprese” at Università degli Studi di Roma “La Sapienza”.

### V – Society memberships, Awards and Honors

Year	Title
2017	<i>Test of Time Award</i> for the paper R. Baldoni, R. Beraldi, V. Quéma, L. Querzoni, and S. T. Piergiovanni. <i>Tera: Topic-based event routing for peer-to-peer architectures</i> . In <i>Proceedings of the 1st International Conference on Distributed Event Based Systems</i> . This work – based on the PhD thesis from Leonardo Querzoni – was awarded as the <b>most influential paper</b> among those presented at the 2007 edition of the International Conference on Distributed Event Based Systems (DEBS).
2019	<i>Best Paper Award Runner-up</i> for the paper L. Massarelli, G. A. Di Luna, F. Petroni, L. Querzoni, and R. Baldoni. <i>SAFE: self-attentive function embeddings for binary similarity</i> published at the 16th Conference on Detection of Intrusions and Malware Vulnerability Assessment (DIMVA).
2019	<i>Nomination for the 2019 Pwnie Awards as “Most Innovative Research”</i> for the paper L. Massarelli, G. A. Di Luna, F. Petroni, L. Querzoni, and R. Baldoni. <i>SAFE: self-attentive function embeddings for binary similarity</i> at Black Hat USA 2019.
2021	<i>Distinguished Paper Award</i> for the paper G.A. Di Luna, D. Italiano, L. Massarelli, S. Österlund, C. Giuffrida and L. Querzoni. <i>Who’s debugging the debuggers? exposing debug information bugs in optimized binaries</i> , published at the 26th ACM International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS).
2023	<i>Test of Time Award</i> for the paper L. Aniello, R. Baldoni, and L. Querzoni. <i>Adaptive online scheduling in storm</i> . In <i>Proceedings of the 7th ACM International Conference on Distributed Event Based Systems</i> . This work was awarded as the <b>most influential paper</b> among those presented at the 2013 edition of the ACM International Conference on Distributed Event Based Systems (DEBS).

## VI – Funding information

### VI.A – Funded projects

Year	Title	Programme	Funding*
2023	SERICS – Spoke 9	NextGenEU Partenariati Estesi	€ 7.878,51
2022	EU-GUARDIAN	EDF-2021-CYBER-R-CDAI-2	€ 856.000
2022	IoT-STYLE Increasing the awareness in IoT Security Through vulnerability Lifecycle management	Ateneo – Large projects	€ 70.00
2021	SAFE - Self-Attentive Function Embeddings for embedded Systems	Piano Nazionale per la Ricerca Militare	€ 380.000
2019	Design and development of a cybersecurity assessment methodology in the banking sector	Industrial project with Banca Monte dei Paschi di Siena	€ 35.000
2016	FilieraSicura: Securing the Supply Chains of Domestic Critical Infrastructures from Cyber Attacks	Industrial project with Cisco and Leonardo Company	€ 270.000
2014	TeraGPU: una piattaforma di calcolo eterogenea per la sperimentazione di algoritmi massivamente paralleli e distribuiti su grandi moli di dati	Ateneo – medium/large infrastructures	€ 42.000
2013	Digital Market Intelligence	Regione Lazio - CORESEARCH	€ 53.000

\* The amount only takes into account the funding received directly by Università degli Studi di Roma “La Sapienza”

### VI.A – Technical contributions to projects

Year	Title	Contributions
2018 - 2019	ATENA (EU H2020)	He directed scientific activities related to the study, design, and development of new methods and techniques for identifying faults and attacks in critical infrastructures.
2016 - 2018	FilieraSicura (Progetto industriale)	Unit leader at University of Rome "La Sapienza" and work package 3 leader "Near Real-time Situational Awareness."
2013 - 2016	TENACE (MIUR PRIN)	Work package 1 leader "Threat model and attack analysis."
2013 - 2015	Digital Market Intelligence (CO-RESEARCH Regione Lazio)	He directed all technical activities related to the security of IT systems defined in the project.
2010 - 2012	DOTS-LCCI (MIUR PRIN)	He made contributions on new advanced solutions for event-based communication through the peer-to-peer model over geographic networks.
2009 - 2011	SOFIA (EU JU Artemis)	He directed research activities aimed at the design and development of fault-tolerant embedded services.
2008 - 2011	SM4All (EU FP7)	Work package 6 leader "Scalability, Dependability, Dynamicity Security, and Privacy".
2008 - 2011	CoMiFin (EU FP7)	He contributed to the overall system architecture design.
2006 - 2008	Esteem (MIUR PRIN)	He was involved in defining peer-to-peer event-based communication solutions.
2006 - 2008	ReSIST (EU NoE)	He participated in research activities conducted in collaboration with LAAS in Toulouse, France, on reliable shared memories in mobile environments.
2003 - 2006	IS-MANET (MIUR FIRB)	He contributed to the design of advanced routing algorithms for mobile ad-hoc networks.
2002 - 2005	MAIS (MIUR FIRB)	He contributed to the design of software replication techniques for fault tolerance.

## VI.B – Other projects

- He was member of the *core team* that developed the proposal for the "Departments of Excellence 2018-2022" call. Based on this proposal, the Department of Computer, Automatic, and Management Engineering Antonio Ruberti was awarded a total funding of 8.6 million euros for the development of research activities in the field of cybersecurity for the next 5 years.

## VII – Research Activities

Topic	Description
Cybersecurity and dependability	<ul style="list-style-type: none"> <li>▪ Cybersecurity governance.</li> <li>▪ Software side channel mitigations.</li> <li>▪ Malware Analysis.</li> <li>▪ Language models for code analysis.</li> <li>▪ Fault detection and identification.</li> </ul>
Stream processing	<ul style="list-style-type: none"> <li>▪ Efficiency and scalability of distributed stream processing platforms with a specific interest in autonomous adaptability of platform configurations to variable load characteristics and exogenous factors.</li> </ul>
Event based middleware	<ul style="list-style-type: none"> <li>▪ Wide-area Publish/subscribe systems (both topic- and content-based) with a specific interest in quality-of-service aspects (message ordering, timeliness), autonomous adaptability to workloads, scalability in large scale contexts.</li> </ul>

Leonardo Querzoni is also with the Research Center Cyber Intelligence e Information Security (CIS) at Sapienza University di Roma and with CINI – Laboratorio Nazionale di Cyber Security.

Leonardo Querzoni is a co-author of the “Italian Framework for Cyber Security and Data Protection” (<http://www.cybersecurityframework.it>) that is widely adopted in Italy by both industries and government bodies. The framework is today part of the “National Cybersecurity Perimeter” law. He is also co-author of the “Essential Cybersecurity Controls”, a guideline for securing systems in SMEs.

## VIII – Summary of Scientific Achievements

### VIII.A – Number of publications by type

Product type	Scopus	Google Scholar	Start	End
Journal Papers	25	29	2005	2023
Conference/workshop papers	69	70	2004	2023
Chapters in books	6	6	2006	2023
Proceedings	5	4	2011	2023
Patents	NA	1	2008	2023

### VIII.B – Bibliometrics

Metric	Scopus	Google Scholar	InCite
Total Impact factor*			93,546
Average Impact Factor			3,74
Total Citations	1220	2541	
Average Citations per Product	12,2	24,2	
Hirsch (H) index	18	24	

\* Calculated as sum of impact factors for journals Leonardo Querzoni has published in.

## IX – Selected Publications

- C. Assaiante, D. C. D'Elia, G. A. D. Luna, and L. Querzoni. Where did my variable go? poking holes in incomplete debug information. In Proceedings of the 28th ACM International Conference on

- Architectural Support for Programming Languages and Operating Systems, Volume 2. ACM, jan 2023.  
*Conference rank: A+, Citations: 2 (Scholar) 1 (Scopus)*
- F. Console, G. D'Aquanno, G. A. Di Luna, and L. Querzoni. Binbench: a benchmark for x64 portable operating system interface binary function representations. *PeerJ Computer Science*, 9:e1286, 6/2023.  
*Journal Q1 IF: 3,8 - Citations: 0 (Scholar) 0 (Scopus)*
  - F. Artuso, G. A. Di Luna, and L. Querzoni. Debugging debug information with neural networks. *IEEE Access*, 10:54136–54148, 2022.  
*Journal Q1 IF: 3,9 - Citations: 2 (Scholar) 2 (Scopus)*
  - L. Massarelli, G. A. Di Luna, F. Petroni, L. Querzoni, and R. Baldoni. Function representations for binary similarity. *IEEE Transactions on Dependable and Secure Computing*, 19(4):2259–2273, 1 2022.  
*Journal Q1 IF: 7,3 - Citations: 6 (Scholar) 2 (Scopus)*
  - G. A. Di Luna, D. Italiano, L. Massarelli, S. Osterlund, C. Giuffrida, and L. Querzoni. Who's debugging the debuggers? exposing debug information bugs in optimized binaries. In *Proceedings of the 26th International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS)*, 4 2021. — **Distinguished Paper Award**  
*Conference rank: A+, Citations: 10 (Scholar) 9 (Scopus)*
  - P. Borrello, D. C. D'Elia, L. Querzoni, and C. Giuffrida. Constantine: Automatic side-channel resistance using efficient control and data flow linearization. In *Proceedings of the ACM Conference on Computer and Communications Security (CCS)*, 2021.  
*Conference rank: A++ - Citations: 33 (Scholar) 6 (Scopus)*
  - O. Farhat, K. Daudjee, and L. Querzoni. Klink: Progress-aware scheduling for streaming data systems. In *Proceedings of the 2021 International Conference on Management of Data SIGMOD*. ACM, jun 2021.  
*Conference rank: A++ - Citations: 4 (Scholar) 3 (Scopus)*
  - G. Pitolli, G. Laurenza, L. Aniello, L. Querzoni, and R. Baldoni. MalFamAware: automatic family identification and malware classification through online clustering. *International Journal of Information Security*, 20(3):371–386, 2020.  
*Journal Q1 IF: 3,2 - Citations: 10 (Scholar) 8 (Scopus)*
  - F. Lombardi, A. Muti, L. Aniello, R. Baldoni, S. Bonomi, and L. Querzoni. PASCAL: An architecture for proactive auto-scaling of distributed services. *Future Generation Computer Systems*, 98:342–361, 2019.  
*Journal Q1 IF: 7,5 - Citations: 22 (Scholar) 13 (Scopus)*
  - F. Lombardi, L. Aniello, S. Bonomi, and L. Querzoni. Elastic symbiotic scaling of operators and resources in stream processing systems. *IEEE Transactions on Parallel and Distributed Systems*, 29(3):572–585, 2018.  
*Journal Q1 IF: 5,3 - Citations: 62 (Scholar) 42 (Scopus)*
  - F. Petroni, L. Querzoni, R. Beraldi, and M. Paolucci. Exploiting user feedback for online filtering in event-based systems. *Future Generation Computer Systems*, 71:202–211, 2017.  
*Journal Q1 IF: 7,5 - Citations: 8 (Scholar) 3 (Scopus)*
  - F. Petroni, L. Querzoni, R. Beraldi, and M. Paolucci. LCBM: a fast and lightweight collaborative filtering algorithm for binary ratings. *Journal of Systems and Software*, 117:583–594, April 2016.  
*Journal Q1 IF: 3,5 - Citations: 9 (Scholar) 5 (Scopus)*
  - R. Baldoni, S. Bonomi, M. Platania, and L. Querzoni. Efficient notification ordering for geo-distributed pub/sub systems. *IEEE Transactions on Computers*, 64(10):2796–2808, 2015.  
*Journal Q1 IF: 3,7 - Citations: 5 (Scholar) 3 (Scopus)*
  - F. Petroni, L. Querzoni, K. Daudjee, S. Kamali, and G. Iacoboni. HDRF: StreamBased Partitioning for Power-Law Graphs. In *Proceedings of the 24th ACM International Conference on Information and Knowledge Management (CIKM)*, 10 2015.  
*Conference rank: A+ - Citations: 148 (Scholar) 91 (Scopus)*
  - L. Aniello, L. Querzoni, and R. Baldoni. High frequency batch-oriented computations over large sliding time windows. *Future Generation Computer Systems*, 43-44:1–11, February 2015.  
*Journal Q1 IF: 7,2 - Citations: 4 (Scholar) 2 (Scopus)*
  - L. Aniello, R. Baldoni, and L. Querzoni. Adaptive online scheduling in storm. In *Proceedings of the 7th ACM International Conference on Distributed Event-Based Systems (DEBS)*, July 2013. — **Test-of-Time Award**  
*Conference rank: B - Citations: 323 (Scholar) 204 (Scopus)*

## X – Technology transfer and other information

### X.A – Technology transfer

- Leonardo Querzoni is, since 2022, **president of the national competence center CYBER 4.0** ([www.cyber40.it](http://www.cyber40.it)). The competence center main mission is to deliver awareness, training, guidance, and consulting services in the field of cybersecurity to small and medium enterprises in Italy. CYBER 4.0 is an association of 45 member that include all the main public and private university from the Lazio region, research centers (CNR), large enterprises (e.g. Leonardo Company, TIM, Almagora, Fincantieri, Engineering, Elettronica) and SMEs. Since his election as president, more than 300 enterprises have improved their level of preparedness against cybersecurity attacks thanks to the competence center's services. CYBER 4.0 is funded by the Italian Ministry of Enterprises and Made in Italy (MIMIT) with a € 13,5M grant that will last till 2025.
- Leonardo Querzoni was **co-founder of Over Technologies S.p.A.** ([www.overttechnologies.com](http://www.overttechnologies.com)), a spin-off of Università degli Studi di Roma "La Sapienza". Over Technologies was founded in September 2012 as an exploitation of the results from FP7 EU projects SM4All and GreenerBuildings. In summer 2014 it obtained a series A round of financing of 1M€ from public and private investors in Italy. On April 2014, for the event "New Frontiers for European Entrepreneurs - Stimulating Digital Entrepreneurship" (in the context of the recently launched initiative of the EU Innovation Radar) Over was identified as one of the 26 top innovators stemming from EU projects. Today Over Technologies is a successful S.p.A. with a client portfolio ranging several clients including banks, hotels, and industries.
- Leonardo Querzoni is **co-author of the international patent** M. E. Marchisio, I. Pazzini, S. Ruffino, R. Baldoni, A. Milani, and L. Querzoni. Method and system for data management in a peer-to-peer network. International Patent, Assignee: Telecom Italia SpA (submitted 31st December 2008, published 8th July 2010, Pub. No. WO/2010/075868, App. No. PCT/EP2008/011143), 2008.

### X.B – Invited talks and tutorials

- "SAFE - Self-Attentive Function Embeddings for Embedded Systems" at *EDA Innovation Days, 2023*
- "Smartification e Sicurezza dei Dispositivi IoT" at Reparto Sicurezza Cibernetica del Comando Trasmissioni – Esercito Italiano, 2023
- "Framework Nazionale per la Cyber Security e la Data Protection" at Banca d'Italia, 2021
- "Framework Nazionale per la Cyber Security e la Data Protection" at Municipality of Fiano Romano, 2021
- "Cybersecurity Assessment con il Framework Nazionale per la Cybersecurity e la Data Protections", webinar organized by Ordine degli Ingegneri, sede di Monza e Brianza, 2021;
- "The SAFE Project: Self-Attentive Function Embeddings for Embedded Systems" at *SEAFUTURE 2021* organised by Italian Blue Growth in collaboration with the Italian Navy, 2021;
- "Infrastrutture critiche, controlli di sicurezza e nuove strategie di difesa" at *Banche e Sicurezza 2019* organized by Associazione Bancaria Italiana, 2019;
- "Framework Nazionale per la Cyber Security e la Data Protection" at *Cybersecurity-Day* organized by the University of Camerino, 2019
- "Cyber Security Assessment - Conoscere il livello di sicurezza informatica della propria azienda" at University of Verona within the event "La Sicurezza Informatica ai Tempi di Industria 4.0", 2018.
- "Sicurezza informatica nelle pubbliche amministrazioni e sviluppi futuri in vista di GDPR" at the municipality of Marsciano, 2018.
- "Un framework nazionale per la cyber security - Adozione e futuri sviluppi" at *ITASEC*, Milan, 2018.
- "Un framework nazionale per la cyber security" at the municipality of Civita Castellana, 2017.
- "Data Streaming and its Application to Stream Processing" tutorial at the *11th ACM International Conference on Distributed Event Based Systems*, 2017.
- "Perché la cybersecurity non è un argomento per tecnici ma riguarda ciascuno di noi" at Senato della Repubblica Italiana, 2016.

- “Efficient Notification Ordering for Geo-Distributed Pub/Sub Systems” at *Streaming Big Data and Publish/Subscribe Systems (Big-PubSub) Workshop*, 2016.
- “Un framework nazionale per la cyber security” at *ForumPA*, 2016.
- “Cloud-based Data Stream Processing” tutorial at the *8th ACM International Conference on Distributed Event Based Systems*, 2014.
- “Enhancing event-based messaging middleware for new large-scale sense-and-respond applications” at INRIA Rhône-Alpes, 2011.
- “Smart Homes For All: An embedded middleware platform for pervasive and immersive environments for-All” at the *First European/US Workshop on Networked Monitoring & Control/Cyber-Physical Systems*, 2009.
- “Smart Homes For All: An embedded middleware platform for pervasive and immersive environments for-All” at *2nd Meeting of the Cluster of Monitoring and Control for Smart Buildings/Smart Spaces*, 2009.
- “Interest clustering techniques for efficient event routing in large-scale settings” tutorial at the *2nd ACM International Conference on Distributed Event Based Systems*, 2008;
- “Techniques for efficient event routing in publish/subscribe systems” at Dipartimento di Scienze dell’Informazione, University of Bologna, 2007;
- “A Scalable P2P Architecture for Topic-based Event Dissemination” at IBM Research Haifa, 2007.
- “Subscription-Driven Self-Organization in Content-Based Publish/Subscribe” at Departamento de Lenguajes y Sistemas Informaticos e Ingeniería de Software, Universidad Politecnica de Madrid, 2005.

#### **X.C – Participation to program committees**

- Member of the program committee for the 20th European Dependable Computing Conference (EDCC), 2024.
- Member of the program committee for the 43rd IEEE International Conference on Distributed Computing Systems (ICDCS), 2023.
- Member of the program committee for ITASEC 2023 | Italian Conference on Cybersecurity.
- Member of the program committee for the 41st International Symposium on Reliable Distributed Systems (SRDS), 2022.
- Member of the program committee for the 23rd ACM/IFIP International Middleware Conference, 2022.
- Member of the program committee for the 18th European Dependable Computing Conference (EDCC), 2022.
- Member of the program committee for the 16th ACM International Conference on Distributed Event-based Systems (DEBS), 2022.
- Member of the program committee for the 40th International Symposium on Reliable Distributed Systems (SRDS), 2021.
- Member of the program committee for the 2nd IEEE International Conference on Autonomic Computing and Self-Organizing Systems, 2021.
- Member of the program committee for the 15th ACM International Conference on Distributed Event-based Systems (DEBS), 2021.
- Member of the program committee for ITASEC 2021 | Italian Conference on Cybersecurity.
- Member of the program committee for the 17th European Dependable Computing Conference (EDCC), 2021.
- Member of the program committee for the 14th ACM International Conference on Distributed Event-based Systems (DEBS), 2020.
- Member of the program committee for the 16th European Dependable Computing Conference (EDCC), 2020.
- Member of the program committee for the 4th IEEE International Workshop on Reliability and Security Data Analysis (RDSA), 2019.

- Co-chair of the program committee for the 13th ACM International Conference on Distributed Event-based Systems (DEBS), 2019.
- Member of the program committee for the 15th European Dependable Computing Conference (EDCC), 2019.
- Member of the demo track program committee for the 3rd Italian Conference on Cyber Security (ITASEC), 2019
- Member of the program committee for the 47th IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), 2017.
- Member of the program committee for the 11th ACM International Conference on Distributed Event-based Systems (DEBS), 2017.
- Member of the demo track program committee for the 1st Italian Conference on Cyber Security (ITASEC), 2017
- Member of the program committee for the 46th IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), 2016
- Member of the program committee for the 10th ACM International Conference on Distributed Event-based Systems (DEBS), 2016.
- Member of the program committee for the 3rd IEEE International Workshop on Reliability and Security Data Analysis (RSDA), 2016.
- Member of the program committee for the 31st ACM/SIGAPP Symposium On Applied Computing (SAC), 2016.
- Member of the program committee for the 17th IEEE Conference on Business Informatics (CBI), 2015.
- Member of the program committee for the 4th Workshop on Big Data Management in Clouds (BigDataCloud), 2015.
- Member of the program committee for the IEEE Services 2015 Visionary Track: Dependable and Secure Services (DSS) theme, 2015.
- Member of the program committee for the 9th ACM International Conference on Distributed Event-based Systems (DEBS), 2015.
- Member of the program committee for the 3rd Workshop on Big Data Management in Clouds (BigDataCloud), 2014.
- Member of the program committee for the 8th ACM International Conference on Distributed Event-based Systems (DEBS), 2014.
- Member of the program committee for the 1st International Workshop on Dependable Systems and Networks (MidDep), 2014.
- Member of the program committee for the 2nd IEEE International Workshop on Reliability and Security Data Analysis (RSDA), 2014.
- Member of the program committee for the 13th IEEE International Conference on Peer-to-Peer Computing (P2P), 2013.
- Member of the program committee for the 7th ACM International Conference on Distributed Event Based Systems (DEBS), 2013.
- Member of the program committee for the 16th International Conference On Principles Of Distributed Systems (OPODIS), 2012.
- Member of the program committee for the 6th ACM International Conference on Distributed Event Based Systems (DEBS), 2012.
- Member of the program committee for the PhD Symposium at the 21st International World Wide Web Conference, 2012.
- Member of the program committee for the 3rd Workshop on Specialized Ad Hoc Networks and Systems (SAHNS), 2011.

- Member of the program committee for the 5th ACM International Conference on Distributed Event Based Systems (DEBS), 2011.
- Member of the program committee for the 31st International Conference on Distributed Computing Systems (ICDCS), 2011.
- Member of the program committee for the 13th European Workshop on Dependable Computing (EWDC), 2011.
- Member of the program committee for the First International workshop on Self-managing solutions for smart environments (S3E), 2011.
- Member of the program committee for the 4th ACM International Conference on Distributed Event Based Systems (DEBS), 2010.
- Member of the program committee for the 8th European Dependable Computing Conference (EDCC-8), 2010.
- Member of the program committee for the 39th IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), 2009.
- Member of the program committee for the 3rd ACM International Conference on Distributed Event Based Systems (DEBS), 2009.
- Member of the program committee for the 3rd International Conference on Autonomic Computing and Communication Systems (Autonomics), 2009.
- Member of the program committee for the 2nd Workshop on Specialized Ad Hoc Networks and Systems (SAHNS), 2009.
- Member of the program committee for the First International Conference on Autonomic Computing and Communication Systems (Autonomics), 2007.
- Member of the program committee for the 1st Workshop on Specialized Ad Hoc Networks and Systems (SAHNS), 2007.

#### X.D – University services and other services

- Since 2023 he is **member of the board for the Ph.D. program in Cybersecurity** at Università degli Studi di Roma “La Sapienza”, in collaboration with Luiss University.
- In 2023 he was member of the jury for the public selection process for 60 computer science technicians at the Italian Cybersecurity National Agency.
- In 2021 he was member of the jury for the State Exam needed to access the national Engineers Register at Università degli Studi di Roma “La Sapienza”.
- In 2021 he was member of the jury for the public selection process for 27 computer science technicians at the Italian Ministry of Foreign Affairs.
- Since 2018 he is **responsible for quality assurance** in the Master of Science in Cybersecurity at Università degli Studi di Roma “La Sapienza”.
- He was **part of the core team that organized *OpenDIAG* in 2014 and 2015**, an open-day event for prospective students interested in the activities carried out at the Department of computer control and management engineering Antonio Ruberti, Università degli Studi di Roma “La Sapienza”.
- From 2013 to 2016 he was **elected as member of the Board of the Department** (Giunta di dipartimento) **and member of Board of the School** (Giunta di facoltà) at Università degli Studi di Roma “La Sapienza”
- Since 2008 he is **member of the board for the Ph.D. program in Engineering in Computer Science** at Università degli Studi di Roma “La Sapienza”.
- From 2017 to 2022 he was **member of the quality assurance commission** (*Commissione di gestione dell'assicurazione qualità della didattica*) for the master and bachelor programs in engineering in computer science at Università degli Studi di Roma “La Sapienza”.
- From 2015 to 2016 he was **member of the internal jury for the final test** (TestVCA) submitted to for students enrolled in the bachelor program “Laurea in Ingegneria Informatica e Automatica” at Università degli Studi di Roma “La Sapienza”.

- From 2009 to 2015 he was **member of the internal jury for the discussion of the thesis for students enrolled in the bachelor program** “Laurea in Ingegneria Informatica e Automatica” at Università degli Studi di Roma “La Sapienza”.
- In 2013 he was **member of the working group that revised the curriculum for the bachelor program** “Laurea in Ingegneria Informatica e Automatica” at Università degli Studi di Roma “La Sapienza”.
- Member of *Commissione Infrastrutture e Sicurezza Informatica* (since 2013) at the Department of computer control and management engineering Antonio Ruberti, Università degli studi di Roma “La Sapienza”. In this role he helped the technical team in designing and implementing a solution for managing power supply outages and in managing a transition toward isolated services for the web-based systems.
- Co-editor of the yearly department research report from 2008 to 2010 at the Department of computer control and management engineering Antonio Ruberti, Università degli studi di Roma “La Sapienza”.

## XI – Full publication list

### XI.A – Journal

- [JI-1] F. Console, G. D’Aquanno, G. A. Di Luna, and L. Querzoni. Binbench: a benchmark for x64 portable operating system interface binary function representations. *PeerJ Computer Science*, 9:e1286, June 2023.
- [JI-2] F. Artuso, G. A. Di Luna, and L. Querzoni. Debugging debug information with neural networks. *IEEE Access*, 10:54136–54148, 2022.
- [JI-3] M. Eugeni, T. Quercia, M. Bernabei, A. Boschetto, F. Costantino, L. Lampani, A. M. Spaccamela, A. Lombardo, M. Mecella, L. Querzoni, R. Usinger, M. Aliprandi, A. Stancu, M. Ivagnes, G. Morabito, A. Simoni, A. Brand’ao, and P. Gaudenzi. An industry 4.0 approach to large scale production of satellite constellations. the case study of composite sandwich panel manufacturing. *Acta Astronautica*, 192:276–290, 2022.
- [JI-4] D. C. D’Elia, L. Invidia, F. Palmaro, and L. Querzoni. Evaluating dynamic binary instrumentation systems for conspicuous features and artifacts. *Digital Threats: Research and Practice*, 3(2), feb 2022.
- [JI-5] L. Massarelli, G. A. Di Luna, F. Petroni, L. Querzoni, and R. Baldoni. Function representations for binary similarity. *IEEE Transactions on Dependable and Secure Computing*, 19(4):2259–2273, 1 2022.
- [JI-6] G. Pitolli, G. Laurenza, L. Aniello, L. Querzoni, and R. Baldoni. MalFamAware: automatic family identification and malware classification through online clustering. *International Journal of Information Security*, 20(3):371–386, 2020.
- [JI-7] L. Massarelli, L. Aniello, C. Ciccotelli, L. Querzoni, D. Ucci, and R. Baldoni. Androdfa: Android malware classification based on resource consumption. *Information*, 11(6):326, Jun 2020.
- [JI-8] F. Lombardi, A. Muti, L. Aniello, R. Baldoni, S. Bonomi, and L. Querzoni. PASCAL: An architecture for proactive auto-scaling of distributed services. *Future Generation Computer Systems*, 98:342–361, 2019.
- [JI-9] F. Lombardi, L. Aniello, S. Bonomi, and L. Querzoni. Elastic symbiotic scaling of operators and resources in stream processing systems. *IEEE Transactions on Parallel and Distributed Systems*, 29(3):572–585, 2018.
- [JI-10] F. Petroni, L. Querzoni, R. Beraldi, and M. Paolucci. Exploiting user feedback for online filtering in event-based systems. *Future Generation Computer Systems*, 71:202–211, 2017.

- [JI-11] F. Petroni, L. Querzoni, R. Beraldi, and M. Paolucci. LCBM: a fast and lightweight collaborative filtering algorithm for binary ratings. *Journal of Systems and Software*, 117:583–594, April 2016.
- [JI-12] R. Baldoni, S. Bonomi, M. Platania, and L. Querzoni. Efficient notification ordering for geodistributed pub/sub systems. *IEEE Transactions on Computers*, 64(10):2796–2808, 2015.
- [JI-13] L. Aniello, L. Querzoni, and R. Baldoni. High frequency batch-oriented computations over large sliding time windows. *Future Generation Computer Systems*, 43-44:1–11, February 2015.
- [JI-14] R. Baldoni, S. Bonomi, A. Cerocchi, and L. Querzoni. Virtual tree: A robust architecture for interval valid queries in dynamic distributed systems. *Journal of Parallel and Distributed Computing*, 73(8):1135–1145, 2013.
- [JI-15] R. Baldoni, R. Beraldi, G. Lodi, M. Platania, and L. Querzoni. Supporting NGNs core software services: a hybrid architecture and its performance analysis. *Journal of the Network and Systems Management*, 20(2):181–199, June 2012.
- [JI-16] Y. Busnel, L. Querzoni, R. Baldoni, M. Bertier, and A.-M. Kermarrec. Analysis of deterministic tracking of multiple objects using a binary sensor network. *ACM Transactions on Sensor Networks*, 8(1):1–27, August 2011.
- [JI-17] C. Di Ciccio, M. Mecella, M. Caruso, V. Forte, E. Iacomussi, K. Rasch, L. Querzoni, G. Santucci, and G. Tino. The homes of tomorrow: Service composition and advanced user interfaces. *ICST Transactions on Ambient Systems*, 11(10), December 2011.
- [JI-18] R. Baldoni, S. Bonomi, G. Lodi, M. Platania, and L. Querzoni. Data dissemination supporting complex event pattern detection. *International Journal on Next Generation Computing*, 2(3), November 2011.
- [JI-19] R. Baldoni, R. Beraldi, G. Lodi, and L. Querzoni. Combining service-oriented and event-driven architectures for designing dependable systems. *Foundations of Computing and Decision Sciences*, 35(2):77–90, 2011.
- [JI-20] R. Baldoni, A. Corsaro, L. Querzoni, S. Scipioni, and S. T. Piergiovanni. Coupling-based algorithm for internal clock synchronization of large scale dynamic systems. *IEEE Transactions on Parallel and Distributed Systems*, 21(5):607 – 619, 2010.
- [JI-21] R. Beraldi, L. Querzoni, and R. Baldoni. Low hitting time random walks in wireless networks. *Wireless Communications and Mobile Computing*, 9(5):719–732, May 2009.
- [JI-22] R. Baldoni, S. Bonomi, L. Querzoni, and S. T. Piergiovanni. Investigating the existence and the regularity of logarithmic harary graphs. *Theoretical Computer Science*, 410(21- 23):2110–2121, February 2009.
- [JI-23] R. Baldoni, R. Jimenez-Peris, M. Patino-Martinez, L. Querzoni, and A. Virgillito. Dynamic quorums for DHT-based enterprise infrastructures. *Journal of Parallel and Distributed Computing*, 68(9):1235–1249, September 2008.
- [JI-24] P. Costa, V. Gramoli, M. Jelasity, G. P. Jesi, E. L. Merrer, A. Montresor, and L. Querzoni. Exploring the interdisciplinary connections of gossip-based systems. *ACM SIGOPS Operating System Review Special topic: Gossip-Based Computer Networking*, 41(5):51–60, October 2007.
- [JI-25] R. Baldoni, R. Beraldi, L. Querzoni, and A. Virgillito. Efficient publish/subscribe through a self-organizing broker overlay and its application to SIENA. *Computer Journal*, 50(4):444–459, July 2007.

- [JI-26] R. Baldoni, R. Beraldi, and L. Querzoni. A hint-based probabilistic protocol for unicast communications in MANETs. *Ad Hoc Networks*, 4(5):547–566, September 2006.
- [JI-27] R. Baldoni, R. Beraldi, G. Cugola, M. Migliavacca, and L. Querzoni. Content-based routing in highly dynamic mobile ad hoc networks. *International Journal of Pervasive Computing and Communications*, 1(4):277–300, December 2005.

### **XI.B – Books**

- [B-28] S. Bonomi, G. A. Di Luna, O. Michail, and L. Querzoni. *Journal of Software and System Sciences Algorithmic Theory of Dynamic Networks and Its Applications*. Elsevier, February 2022.
- [B-29] B. Chandramouli, B. Koldehofe, L. Querzoni, G. Salvaneschi, and V. Setty, editors. *Proceedings of the 13th ACM International Conference on Distributed and Event-Based Systems (DEBS)*. ACM, July 2019.
- [B-30] M. K. Aguilera, L. Querzoni, and M. Shapiro, editors. *Proceedings of the 18th International Conference On Principles of Distributed Systems (OPODIS)*, volume 8878 of *Lecture Notes in Computer Science*. Springer, December 2014.
- [B-31] G. Ateniese, B. Crispo, and L. Querzoni, editors. *Proceedings of the 1st International Workshop on Big Data Analytics for Security (DASec)*, in *ICDCSW 2014*. IEEE, July 2014.
- [B-32] L. Laura and L. Querzoni, editors. *Proceedings of the 1st International International Workshop on Algorithms and Models for Distributed Event Processing*. ACM, September 2011.

### **XI.C – Chapters in books**

- [BC-33] P. Bo, A. Granato, M. E. Mancuso, C. Ciccotelli, and L. Querzoni. *FADa-CPS Faults and Attacks Discrimination in Cyber Physical Systems*, volume *Policy-Based Autonomic Data Governance of Lecture Notes in Computer Science*, pages 91–112. Springer International Publishing, 2019.
- [BC-34] M. Elingiusti, L. Aniello, L. Querzoni, and R. Baldoni. Pdf-malware detection: a survey and taxonomy of current techniques. In M. Conti, T. Dargahi, and A. Dehghantanha, editors, *Cyber Threat Intelligence, Advanced in Information Security*, pages 169–191. Springer, 2018.
- [BC-35] R. Baldoni, L. Querzoni, S. Tarkoma, and A. Virgillito. Distributed event routing in publish/subscribe systems. In H. Miranda, L. Rodriguez, and B. Garbinato, editors, *Middleware for Network Eccentric and Mobile Applications*. Springer Berlin / Heidelberg, February 2009.
- [BC-36] M. Adorni, F. Arcelli, R. Baldoni, R. Beraldi, A. Limonta, M. Locatelli, P. Losi, C. Marchetti, A. Milani, L. Querzoni, C. Raibulet, M. Sarini, C. Simone, F. Tisato, S. T. Piergiovanni, A. Virgillito, and G. Vizzari. *Middleware and architectural reflection*. In *Mobile Information Systems*, pages 81–114. Springer, July 2006.
- [BC-37] A. Milani, L. Querzoni, and S. T. Piergiovanni. Data object storage in large scale distributed systems. In *Global Data Management*, volume 8 of *Emerging Communication: Studies in New Technologies and Practices in Communication*. IOS Press, May 2006.
- [BC-38] A. Corsaro, L. Querzoni, S. Scipioni, S. T. Piergiovanni, and A. Virgillito. Quality of service in publish/subscribe middleware. In *Global Data Management*, volume 8 of *Emerging Communication: Studies in New Technologies and Practices in Communication*. IOS Press, May 2006.

### **XI.D – International Conferences and Workshops**

- [CI-39] M. P. Carello, A. M. Spaccamela, L. Querzoni, and M. Angelini. Sok: Cybersecurity regulations, standards and guidelines for the healthcare sector. In Proceedings of the 2023 IEEE International Conference on Intelligence and Security Informatics (ISI), to appear, 10 2023.
- [CI-40] C. Assaiante, D. C. D'Elia, G. A. D. Luna, and L. Querzoni. Where did my variable go? poking holes in incomplete debug information. In Proceedings of the 28th ACM International Conference on Architectural Support for Programming Languages and Operating Systems, Volume 2. ACM, jan 2023.
- [CI-41] G. Priamo, D. C. D'Elia, and L. Querzoni. Principled composition of function variants for dynamic software diversity and program protection. In Proceedings of the 37th IEEE/ACM International Conference on Automated Software Engineering. ACM, oct 2022.
- [CI-42] D. C. D'Elia, L. Invidia, and L. Querzoni. Rope: Covert multi-process malware execution with return-oriented programming. In Proceedings of the 26th European Symposium on Research in Computer Security ESORICS, pages 197–217, 2021.
- [CI-43] P. Borrello, D. C. D'Elia, L. Querzoni, and C. Giuffrida. Constantine: Automatic side-channel resistance using efficient control and data flow linearization. In In Proceedings of the ACM Conference on Computer and Communications Security (CCS), 2021.
- [CI-44] O. Farhat, K. Daudjee, and L. Querzoni. Klink: Progress-aware scheduling for streaming data systems. In Proceedings of the 2021 International Conference on Management of Data SIGMOD. ACM, jun 2021.
- [CI-45] G. A. Di Luna, D. Italiano, L. Massarelli, S. Osterlund, C. Giuffrida, and L. Querzoni. Who's debugging the debuggers? exposing debug information bugs in optimized binaries. In Proceedings of the 26th International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS) — Distinguished Paper Award, 4 2021.
- [CI-46] G. A. Di Luna, E. Anceaume, S. Bonomi, and L. Querzoni. Synchronous byzantine lattice agreement in  $o(\log(f))$  rounds. In Proceedings of the 40th International Conference on Distributed Computing Systems, 2020.
- [CI-47] A. Fioraldi, D. C. D'Elia, and L. Querzoni. Fuzzing binaries for memory safety errors with qasan. In 2020 IEEE Secure Development (SecDev), pages 23–30, 2020.
- [CI-48] M. Angelini, C. Ciccotelli, L. Franchina, A. Marchetti-Spaccamela, and L. Querzoni. Italian national framework for cybersecurity and data protection. In Proceedings of the ENISA Annual Privacy Forum, 2020.
- [CI-49] G. A. Di Luna, E. Anceaume, and L. Querzoni. Byzantine generalized lattice agreement. In Proceedings of the 34th IEEE International Parallel & Distributed Processing Symposium (IPDPS), 2020.
- [CI-50] S. Coltellse, F. Maria Maggi, A. Marrella, L. Massarelli, and L. Querzoni. Triage of iot attacks through process mining. On the Move to Meaningful Internet Systems: OTM 2019 Conferences, pages 326–344, 2019.
- [CI-51] E. Petagna, G. Laurenza, C. Ciccotelli, and L. Querzoni. Peel the onion: Recognition of android apps behind the tor network. In Proceedings of the 15th International Conference on Information Security Practice and Experience, 2019.
- [CI-52] L. Massarelli, G. A. Di Luna, F. Petroni, L. Querzoni, and R. Baldoni. SAFE: self-attentive function embeddings for binary similarity. In Proceedings of the 16th Conference on Detection of Intrusions and Malware Vulnerability Assessment (DIMVA) — Best Paper Award runner-up, 2019.
- [CI-53] L. Massarelli, G. A. Di Luna, F. Petroni, L. Querzoni, and R. Baldoni. Investigating graph embedding neural networks with unsupervised features extraction for binary analysis. In Proceedings of the Workshop on Binary Analysis Research (BAR), 2019.

- [CI-54] L. Massarelli, L. Aniello, C. Ciccotelli, L. Querzoni, D. Ucci, and R. Baldoni. Android malware family classification based on resource consumption over time. In Proceedings of the 12th International Conference on Malicious and Unwanted Software, pages 31–38, 2017.
- [CI-55] G. Pitoli, L. Aniello, G. Laurenza, L. Querzoni, and R. Baldoni. Malware family identification with birch clustering. In Proceedings of the 51st International Carnahan Conference on Security Technology, 10 2017.
- [CI-56] L. Querzoni and N. Rivetti. Data streaming and its application to stream processing: Tutorial. In Proceedings of the 11th ACM International Conference on Distributed Event-Based Systems (DEBS), pages 15–18, 07 2017.
- [CI-57] N. Rivetti, E. Anceaume, Y. Busnel, L. Querzoni, and B. Sericola. Online scheduling for shuffle grouping in distributed stream processing systems. In Proceedings of the ACM/IFIP/USENIX Middleware Conference, 2016.
- [CI-58] L. Aniello, C. Ciccotelli, M. Cinque, F. Frattini, L. Querzoni, and S. Russo. Automatic invariant selection for online anomaly detection. In Proceedings of the 35th International Conference on Computer Safety, Reliability and Security (SAFECOMP), 2016.
- [CI-59] N. Rivetti, Y. Busnel, and L. Querzoni. Load-aware shedding in stream processing systems. In Proceedings of the 10th ACM International Conference on Distributed Event-Based Systems (DEBS), June 2016.
- [CI-60] F. Petroni, L. Querzoni, R. Beraldi, and M. Paolucci. Exploiting User Feedback for Online Filtering in Event-based Systems. In Proceedings of the 31st ACM Symposium on Applied Computing (SAC), 4 2016.
- [CI-61] F. Petroni, L. Querzoni, K. Daudjee, S. Kamali, and G. Iacoboni. HDRF: Stream-Based Partitioning for Power-Law Graphs. In Proceedings of the 24th ACM International Conference on Information and Knowledge Management (CIKM), 10 2015.
- [CI-62] C. Ciccotelli, L. Aniello, F. Lombardi, L. Montanari, L. Querzoni, and R. Baldoni. NIRVANA: A Non-Intrusive Black-Box Monitoring Framework for Rack-level Fault Detection. In In Proceedings of the 21st IEEE Pacific Rim International Symposium on Dependable Computing (PRDC), 10 2015.
- [CI-63] N. Rivetti, L. Querzoni, E. Anceaume, Y. Busnel, and B. Sericola. Efficient key grouping for near-optimal load balancing in stream processing systems. In Proceedings of the 9th ACM International Conference on Distributed Event-Based Systems (DEBS), June 2015.
- [CI-64] F. Petroni and L. Querzoni. GASGD: stochastic gradient descent for distributed asynchronous matrix completion via graph partitioning. In Proceedings of the 8th ACM Conference on Recommender Systems (RecSys), pages 241–248, October 2014.
- [CI-65] M. Caruso, M. Mecella, A. Cerocchi, V. Forte, L. Querzoni, and R. Baldoni. Energy management in smart spaces through the oplatform. In Proceedings of the 2nd International WorkShop on Energy-Aware Systems, Communications and Security (EASyCoSe), September 2014.
- [CI-66] L. Aniello, A. Bondavalli, A. Ceccarelli, C. Ciccotelli, M. Cinque, F. Frattini, A. Guzzo, A. Pecchia, A. Pugliese, L. Querzoni, and S. Russo. Big data in critical infrastructures security monitoring: Challenges and opportunities. In Proceedings of EDCCW Big4CIP, volume abs/1405.0325, July 2014.
- [CI-67] T. Heinze, L. Aniello, L. Querzoni, and Z. Jerzak. Cloud-based data stream processing. In Proceedings of the 8th ACM International Conference on Distributed Event-Based Systems (DEBS), pages 238–245, May 2014.
- [CI-68] L. Aniello, R. Baldoni, C. Ciccotelli, G. A. Di Luna, F. Frontali, and L. Querzoni. The overlay scan attack: inferring topologies of distributed pub/sub systems through broker saturation. In

Proceedings of the 8th ACM International Conference on Distributed Event-Based Systems (DEBS), pages 107–117, May 2014.

- [CI-69] F. Petroni, L. Querzoni, R. Beraldi, and M. Paolucci. LCBM: statistics-based parallel collaborative filtering. In Proceedings of the 17th International Conference on Business Information Systems (BIS), pages 172–184, May 2014.
- [CI-70] L. Aniello, R. Baldoni, and L. Querzoni. Adaptive online scheduling in storm. In Proceedings of the 7th ACM International Conference on Distributed Event-Based Systems (DEBS), July 2013.
- [CI-71] L. Aniello, R. Baldoni, and L. Querzoni. Input data organization for batch processing in time window-based computations. In Proceedings of the 28th ACM Symposium On Applied Computing (SAC), March 2013.
- [CI-72] R. Baldoni, G. A. Di Luna, and L. Querzoni. Collaborative detection of coordinated port scans. In Proceedings of the 14th International Conference on Distributed Computing and Networking (ICDCN), pages 102–117. Springer Berlin Heidelberg, January 2013.
- [CI-73] M. Caruso, M. Mecella, R. Baldoni, L. Querzoni, and A. Cerocchi. User profiling and micro-accounting for smart energy management. In Proceedings of the 11th ACM Conference on Embedded Networked Sensor Systems, 2013.
- [CI-74] F. Petroni and L. Querzoni. HSIENA: A Hybrid Publish/Subscribe System. In Proceedings of the International Workshop on Dependable and Secure Computing for Large-Scale Complex Critical Infrastructures (DESEC4LCCI), September 2012.
- [CI-75] R. Baldoni, S. Bonomi, M. Platania, and L. Querzoni. Dynamic message ordering for topic-based publish/subscribe systems. In Proceedings of the 26th IEEE International Parallel & Distributed Processing Symposium, March 2012.
- [CI-76] R. Baldoni, S. Bonomi, A. Cerocchi, and L. Querzoni. Virtual tree: a robust overlay network for ensuring interval valid queries in dynamic distributed systems. In Proceedings of the 13th International conference on distributed computing and networking, January 2012.
- [CI-77] R. Beraldi, A. Cerocchi, F. Papale, and L. Querzoni. Brief announcement: Distributed self-organizing event space partitioning for content-based publish/subscribe systems. In Proceeding of the 13th International Symposium on Stabilization, Safety, and Security of Distributed Systems, September 2011.
- [CI-78] R. Baldoni, M. Mecella, and L. Querzoni. Smart services for home automation: Open problems for concurrency and failure management. In Proceedings of the 5th International Conference on Pervasive Computing and Applications, December 2010.
- [CI-79] R. Baldoni, R. Beraldi, G. Lodi, M. Platania, and L. Querzoni. Moving core services to the edge innngns for reducing managed infrastructure size. In Proceedings of the 6th International Conference on Networks and Services Management, 2010.
- [CI-80] R. Baldoni, S. Bonomi, A. Cerocchi, and L. Querzoni. Improving validity of query answering in dynamic systems. In Proceedings of the 3rd International Workshop on Reliability, Availability, and Security, 2010.
- [CI-81] R. Baldoni, M. Platania, L. Querzoni, and S. Scipioni. Practical uniform peer sampling under churn. In Proceedings of the 9th International Symposium on Parallel and Distributed Computing (ISPDC), Istanbul, Turkey, 2010, 2010.
- [CI-82] R. Baldoni, S. Bonomi, G. Lodi, and L. Querzoni. Data dissemination supporting collaborative complex event processing: characteristics and open issues. In Proceedings of the 1st Workshop on Data Distribution for Large-Scale Complex Critical Infrastructures (DDLCCI), 2010.
- [CI-83] R. Baldoni, A. Cerocchi, G. Lodi, L. Montanari, and L. Querzoni. Designing highly available repositories for heterogeneous sensor data in open home automation systems. In Proceedings of the

7th IFIP Workshop on Software Technologies for Future Embedded and Ubiquitous Systems (SEUS), November 2009.

- [CI-84] R. Baldoni, R. Beraldi, M. Dominici, and L. Querzoni. Diffusing events through JMS on the Sun SPOT platform: a practical experience report. In Proceedings of the 3rd ACM International Conference on Distributed Event-Based Systems (DEBS), pages 1–2, New York, NY, USA, July 2009. ACM.
- [CI-85] G. Lodi, L. Querzoni, R. Baldoni, M. Marchetti, M. Colajanni, V. Bortnikov, G. Chockler, E. Dekel, G. Laventman, and A. Roytman. Defending financial infrastructures through early warning systems: The intelligence cloud approach. In Proceedings of the 5th Annual Workshop on Cyber Security and Information Intelligence Research: Cyber Security and Information Intelligence Challenges and Strategies, 2009.
- [CI-86] R. Baldoni, L. Doria, G. Lodi, and L. Querzoni. Managing reputation in contract-based distributed systems. In Proceedings of the 11th International Symposium on Distributed Objects, Middleware, and Applications (DOA), 2009.
- [CI-87] M. Roy, F. Bonnet, L. Querzoni, S. Bonomi, M.-O. Killijian, and D. Powell. Geo-registers: an abstraction for spatial-based distributed computing. In Proceedings of the 12nd International Conference On Principles of Distributed Systems (OPODIS), Luxor, Egypt, pages 534–537, December 2008.
- [CI-88] R. Baldoni, M. Platania, L. Querzoni, and S. Scipioni. A peer-to-peer filter-based algorithm for internal clock synchronization in presence of corrupted processes. In Proceedings of the 14th Pacific Rim International Symposium on Dependable Computing (PRDC), Taipei, Taiwan, November 2008.
- [CI-89] R. Baldoni, L. Querzoni, and S. Scipioni. Event-based data dissemination on inter-administrative domains: a practical analysis. In Proceedings of the 12th IEEE International Workshop on Future Trends of Distributed Computing Systems (FTDCS), Kunming, China, October 2008.
- [CI-90] R. Baldoni, S. Bonomi, L. Querzoni, and S. T. Piergiovanni. Investigating the existence and the regularity of logarithmic harary graphs. In Proceedings of the 27th International Symposium on Reliable Distributed Systems (SRDS), Naples, Italy, October 2008.
- [CI-91] R. Baldoni, R. Jimenez-Peris, M. Patino-Martinez, L. Querzoni, and A. Virgillito. Harnessing the power of dhds to build dynamic quorums in large-scale enterprise infrastructures. In Proceedings of the 2nd International Large-Scale Distributed Systems and Middleware Workshop (LADIS), New York, USA, September 2008.
- [CI-92] S. Scipioni, L. Querzoni, R. Baldoni, and S. T. Piergiovanni. A theoretical evaluation of peer-to-peer internal clock synchronization. In Proceedings of the 2nd International Conference on Autonomic Computing and Communication Systems (Autonomics), Turin, Italy, September 2008.
- [CI-93] L. Querzoni. Interest clustering techniques for efficient event routing in large-scale settings. In Proceedings of the 2nd International Conference on Distributed Event-Based Systems (DEBS), Rome, Italy, July 2008.
- [CI-94] Y. Busnel, L. Querzoni, R. Baldoni, M. Bertier, and A.-M. Kermarrec. On the deterministic tracking of moving objects with a binary sensor network. In Proceedings of the fourth IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS), volume 5067, pages 46–59. Springer, June 2008.
- [CI-95] M. Roy, M.-O. Killijian, S. Tucci-Piergiovanni, L. Querzoni, S. Bonomi, S. Scipioni, and F. Bonnet. Fada: Formalisms and algorithms for resilient services design in ambient systems. In Proceedings of the 7th European Dependable Computing Conference (EDCC) - Fast Abstracts Supplemental Volume, May 2008.
- [CI-96] R. Baldoni, A. Corsaro, L. Querzoni, S. Scipioni, and S. T. Piergiovanni. An adaptive coupling-based algorithm for internal clock synchronization of large scale dynamic systems. In Proceedings of

the 9th International Symposium on Distributed Objects and Applications (DOA), pages 701–716, November 2007.

- [CI-97] R. Baldoni, R. Beraldi, V. Qu'ema, L. Querzoni, and S. T. Piergiovanni. Tera: Topic-based event routing for peer-to-peer architectures. In Proceedings of the 1st International Conference on Distributed Event Based Systems (DEBS) — Test of Time Award 2017, July 2007.
- [CI-98] R. Baldoni, S. Bonomi, L. Querzoni, A. Rippa, S. T. Piergiovanni, and A. Virgillito. Fighting erosion in dynamic large-scale overlay networks. In Proceedings of the 21st IEEE International Conference on Advanced Information Networking and Applications (AINA), January 2007.
- [CI-99] R. Baldoni, G. Cortese, F. Morabito, L. Querzoni, S. T. Piergiovanni, and A. Virgillito. On the accuracy of event distribution lists for publish/subscribe. In Proceedings of the 5th International Workshop on Distributed Event-Based Systems (DEBS-06) - 26th IEEE International Conference on Distributed Computing Systems Workshops (ICDCSW), page 31, July 2006.
- [CI-100] R. Baldoni, S. Bonomi, L. Querzoni, A. Rippa, S. T. Piergiovanni, and A. Virgillito. Evaluation of unstructured overlay maintenance protocols under churn. In Proceedings of the 1st International Workshop on Dynamic Distributed Systems (IWDDS-06) - Proceedings of the 26th IEEE International Conference Workshops on Distributed Computing Systems (ICDCSW), page 13, January 2006.
- [CI-101] R. Baldoni, R. Jim'enez-Peris, M. Patino-Martinez, L. Querzoni, and A. Virgillito. Dynamic quorums for DHT-based P2P networks. In Proceedings of the 4th IEEE International Symposium on Network Computing and Applications (NCA), Cambridge, MA, USA, July 2005.
- [CI-102] R. Baldoni, R. Beraldi, and L. Querzoni. A hint-based probabilistic protocol for unicast communications in MANETs. In Proceedings of the 11th International Conference on Parallel and Distributed Systems (ICPADS), Fukuoka, Japan, July 2005.
- [CI-103] R. Baldoni, R. Beraldi, G. Cugola, M. Migliavacca, and L. Querzoni. Structure-less content-based routing in mobile ad hoc networks. In Proceedings of the 2nd International Conference on Pervasive Services (ICPS), Santorini, Greece, July 2005.
- [CI-104] R. Baldoni, E. Barbi, S. Cimmino, C. Marchetti, P. Papa, and L. Querzoni. A practical comparison between the TAO real-time event service and the Maestro/Ensemble group communication system. In Proceedings of the 6th International Symposium on Distributed Objects and Applications (DOA), Larnaca, Cyprus, volume 3291/2004, pages 1558–1570. Springer Berlin / Heidelberg, October 2004.
- [CI-105] L. Querzoni. A self-healing network for content-based publish/subscribe systems. In Student Forum supplemental volume for the 34th International Conference on Dependable Systems and Networks (DSN), June 2004.
- [CI-106] R. Baldoni, R. Beraldi, L. Querzoni, and A. Virgillito. A self-organizing crash-resilient topology management system for content-based publish/subscribe. In Proceedings of the 3rd International Workshop on Distributed Event-Based Systems (DEBS), Edinburgh, Scotland, UK, May 2004.
- [CI-107] R. Baldoni, R. Beraldi, L. Querzoni, and A. Virgillito. Subscription-driven self-organization in content-based publish/subscribe. In Proceedings of the 1st International Conference on Autonomic Computing (ICAC), New York, USA, May 2004.

## **XI.E – Technical Reports**

- [TR-108] M. P. Carello, A. M. Spaccamela, L. Querzoni, and M. Angelini. A systematization of cybersecurity regulations, standards and guidelines for the healthcare sector. 04 2023.
- [TR-109] G. Capozzi, D. C. D'Elia, G. A. D. Luna, and L. Querzoni. Adversarial attacks against binary similarity systems. 03 2023.
- [TR-110] M. P. Carello, A. M. Spaccamela, L. Querzoni, and M. Angelini. A systematization of cybersecurity regulations, standards and guidelines for the healthcare sector. 04 2023.

- [TR-111] G. Capozzi, D. C. D’Elia, G. A. D. Luna, and L. Querzoni. Adversarial attacks against binary similarity systems. 03 2023.
- [TR-112] F. Artuso, M. Mormando, G. A. D. Luna, and L. Querzoni. Binbert: Binary code understanding with a fine-tunable and execution-aware transformer. 08 2022.
- [TR-113] E. Petagna, G. Laurenza, C. Ciccotelli, and L. Querzoni. Peel the onion: Recognition of android apps behind the tor network. CoRR, abs/1901.04434, 2019.
- [TR-114] L. Massarelli, G. A. Di Luna, F. Petroni, L. Querzoni, and R. Baldoni. SAFE: self-attentive function embeddings for binary similarity. CoRR, abs/1811.05296, 2018.
- [TR-115] R. Baldoni, G. A. Di Luna, L. Massarelli, F. Petroni, and L. Querzoni. Unsupervised features extraction for binary similarity using graph embedding neural networks. CoRR, abs/1810.09683, 2018.

## **XI.F – Patents**

- [P-116] M. E. Marchisio, I. Pazzini, S. Ruffino, R. Baldoni, A. Milani, and L. Querzoni. Method and system for data management in a peer-to-peer network. International Patent, Assignee: Telecom Italia SpA. (submitted 31st December 2008, published 8th July 2010, Pub. No. WO/2010/075868, App. No. PCT/EP2008/011143), 2008.