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Mattia Salnitri

CURRICULUM VITAE

(N.B. IL CURRICULUM NON DEVE ECCEDERE LE 30 PAGINE E DEVE CONTENERE GLI ELEMENTI CHE IL CANDIDATO RITIENE UTILI AI FINI DELLA VALUTAZIONE.

LE VOCI INSERITE NEL FACSIMILE SONO A TITOLO PURAMENTE ESEMPLIFICATIVO E POSSONO ESSERE SOSTITUITE, MODIFICATE O INTEGRATE)

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	SALNITRI
NOME	MATTIA
DATA DI NASCITA	26/04/1986

Mattia Salnitri

Curriculum Vitae

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SUMMARY

My main research interests are related to secure business process engineering. In particular I'm interested on how to facilitate security experts and domain experts in the definition of business process that can be considered secure. I'm also very interested in the privacy assessment of large socio-technical systems, especially for what concerns the verification of the correct enforcement of requirements determined by privacy laws, such as the GDPR, using business processes and goal-based modelling languages.

ACADEMIC POSITIONS

Visiting Research Fellow

University of Bournemouth – Bournemouth (United Kingdom)

June 2020 - Current

I collaborate with the Engineering and Social Informatics Research Group (ESOTICS) of the Department of Computing & Informatics. The research work consists in defining a new paradigm for the design of socio-technical systems that encompasses people as main actors and not as mere users, shifting from a classical software engineering approach to socio-technical engineering.

Postdoctoral Research Fellow

Politecnico di Milano – Milan (Italy)

September 2017 - Current

I am part of the Information System group of the department of Electronic, Computer science and Bioengineering (DEIB). I focus my research work on the definition of methods for the automated decision of data movement strategies in fog computing. I participated in a European founded project called DITAS (<https://cordis.europa.eu/project/id/731945>).

Postdoctoral Research Fellow

University of Trento – Trento (Italy)

May 2016 – September 2017

I collaborated with researchers, both from industries and academia, on research topics related to privacy and security in complex socio-technical systems. In particular I was focused on the assessment of privacy and security requirement in business processes.

Ph.D. Candidate

University of Trento – Trento (Italy)

September 2011 – April 2016

I focused my research on the engineering of secure business processes. In particular, I worked on the automated generation of business processes from goal-based modelling languages and how to enforce security requirements in the business processes and in the implementation that can be derived from them.

CURRENT RESEARCH FOCUS

My research work focuses on software engineering and information system research fields. In particular my main research objective consists in helping experts to address the management of complex and large socio-technical systems.

Data movement in fog computing

My research focuses on enhancing the management of resources and data in fog computing. I created a framework that optimizes the usage resources of fog computing by moving data and computational task in the best host possible, based on users' requirements. In particular I extended a goal-based modeling language and reasoning techniques to specify adaptation criteria and chose the best adaptation based on strategies defined by users.

Socio-technical engineering: behavioral requirements in socio-technical systems

Socio-technical systems are systems composed by autonomous technical and social components (people and organizations) that interact with each other to achieve common objectives. My research, on this topic, consists in exploring and defining how to integrate human properties in the design of socio-technical systems, reshaping software engineering processes into socio-technical engineering ones. In particular, I envisioned the definition of a top tier type of requirements for behaviors of people (i.e., behavioral requirements), that will impact on the actual process of engineering socio-technical systems.

Privacy, data minimization and fairness

My research work addresses privacy issues from different perspectives. I have created frameworks that helps privacy experts to automatically assess large socio-technical systems and to verify if privacy requirements derived from privacy laws, such as the new General Data Protection Regulation (GDPR), are correctly enforced. Furthermore, I created another framework to address the possible conflicts between data minimization fairness (two common privacy requirements) and other security and privacy requirements. Ongoing research work consists in generalizing the approach for the creation of a framework that will help privacy experts to design and assess privacy in socio-technical systems.

Secure Business process engineering

In my research I am proposing a framework that assists security experts and domain experts to design and implement secure business processes. The framework covers most of the software engineering phases: from the definition of security requirements, until the creation of software that automatically enforces such requirements. Ongoing work consists in the extension of the modelling languages used, enhance of the performance of the automated part of the framework, enforcement of security requirements using blockchain technology.

RESEARCH ACTIVITIES

Participation to international projects

- **DITAS** (<https://cordis.europa.eu/project/id/731945>). Data intensive application improvement by moving data and computation in mixed cloud/fog environment (2017- 2020). I collaborated with the consortium to define an automated framework for the decision of the adaptation mechanism to enact in order to maximize requirement of users.
- **PACAS** (<https://cordis.europa.eu/project/id/699306>). Participatory Architectural Change Management in ATM Systems (2016 - 2017). I coordinated a work package to create of a platform for helping decision makers to understand impact of changes from different perspectives in Air Traffic Management (ATM) systems.

- **VisiOn** (<https://cordis.europa.eu/project/id/653642>). Increase citizen awareness on privacy (2016 - 2017). I coordinated a work package to create a framework for the design of complex socio-technical systems aligned with privacy requirements defined by their stakeholders.
- **Aniketos** (<https://cordis.europa.eu/project/id/257930>). Ensuring trustworthiness and security in service compositions (2011- 2014). I collaborated with the partners of the Aniketos consortium to create a framework for the automated verification of security policies in business processes.
- **Lucretius** (<https://cordis.europa.eu/project/id/267856>). Foundation for software evolution (2011- 2015). I collaborated with other researchers of the Software Engineering group in University of Trento, to define a framework for designing secure business processes for socio-technical systems.

Research collaborations

- Prof Julius Köpke of **University of Klagenfurt**, Austria, Dr. Giovanni Meroni of **Politecnico di Milano**, Italy: joint research work on enforcement of security requirements specified in business processes using blockchain technology.
- Prof. John McAlaney, Prof. Raian Ali of **University of Bournemouth**, United Kingdom: joint research work for the enforcement of security and privacy requirements using psychology.
- Pierluigi Plebani, Monica Vitali of **Politecnico di Milano**, Italy: joint research work in the field of data and computation movement in fog computing [8,15,17].
- Prof. Jennifer Horkoff **University of Gothenburg Chalmers**, Sweden, Prof. Fatma Başak Aydemir **Bogazici University**, Turkey, Dr. Evellin Cardoso, **Free University of Bozen-Bolzano**, Italy, Prof. Tong Li **Beijing University of Technology**, China, Prof. Alejandro Maté **University of Alicante**, Spain, Prof Elda Paja **IT University of Copenhagen**, Denmark, Luca Piras **University of Brighton**, United Kingdom, John Mylopoulos, **University of Ottawa**, Canada, Paolo Giorgini **University of Trento**, Italy: joint research work on systematic literature review of goal models. [11,12,13,25].
- Prof. Nicola Zannone, Mahdi Alizadeh **Eindhoven University of Technology**, Netherlands: joint research work in the field of identification of security-critical execution of business processes [28].
- Prof Haralambos Mouratidis, Prof Michalis Pavlidis, **University of Brighton**, United Kingdom and Vasiliki Diamantopoulou of **University of the Aegean**, Greece: joint research on the field of privacy assessment in large socio-technical systems [1,3,5,10,21].
- Prof. Jan Jürjens, Qusai Ramadan **University of Koblenz-Landau**, Germany and Daniel Strüber of **Chalmers University of technology**, Sweden: joint research in the field of privacy [1,5,7,9,18,20].
- Prof. Achim Bruker – **The University of Sheffield**, UK: joint research in the field of enforcement of security and privacy requirements [24].
- Prof. Paolo Giorgini, Elda Paja, Marco Robol of **University of Trento**, Italy: joint research work in the field of privacy and security assessment of business processes and goal models [1,6,16,19].

ORGANIZATION AND PARTICIPATIONS TO INTERNATIONAL CONFERENCES

Events organized (Organizing committee)

- **IEEE Eighth International Workshop on Evolving Security & Privacy Requirements Engineering (ESPRE)** Workshop co-located with RE 2021.
- **Second workshop on Next Generation Information Systems: Modeling, Monitoring and Management in Cloud and Fog Computing (NeGIS 2021)** (Grenoble– France). Workshop co-located with CAiSE 2021.
- **First workshop on Next Generation Information Systems: Modeling, Monitoring and Management in Cloud and Fog Computing (NeGIS 2020¹)** (Grenoble– France). Workshop co-located with CAiSE 2020.

Invited talk

- **Bournemouth University 2020 (Bournemouth – United Kingdom)** (Seminar). Title: Secure Business Process Engineering: a Socio-technical Approach

Speaker in international conferences

¹ <https://www.negis.polimi.it>

- **RE 2019** (Jeju – South Korea) (Tutorial). Title: Strategies for data and computation movements in fog computing
- **RE 2016** (Beijing- China) (Tutorial). Title: Security Requirement Engineering

Associate Editor

- 2019-2021 International Journal of Information Security and Privacy [IJISP]

Member of Review board

- 2019-2021 International Journal of Information System Modeling and Design [IJISMD]
- 2019-2021 Sensor international journal [SENSOR]

Session Chair Service

- 2020 International Conference on Research Challenges in Information Science [RCIS]

Program Committee Service

- 2021 IEEE International Conference on JointCloud Computing [IEEE JCC]
- 2021 International Conference on Behavioral and Social Computing [BESC]
- 2020-2021 International conference on Research Challenges in Information Science [RCIS]
- 2020-2021 International working conference on Exploring Modeling Methods for Systems Analysis and Development [EMMSAD]
- 2020-2021 International Workshop on Artificial Intelligence and Requirements Engineering [AIRE]
- 2020-2021 International Workshop on Evolving Security & Privacy Requirements Engineering [ESPRE]
- 2019 Strategic Modeling and Reasoning meets Process Mining Workshop [SMRPM]
- 2019-2020 BPM demo
- 2019 DAMove-2019 workshop
- 2018 International Workshop on Petri Nets and Software Engineering [PNSE]
- 2017-2019 SECurity and Privacy Requirements Engineering [SECPRE]
- 2017 International Workshop on Requirements Prioritization and Enactment [Priore]
- 2016 - 2019 Federated Conference on Computer science and Information Systems [FedCSIS]
- 2015 Workshop on Methodologies for Robustness Injection into Business Processes [MRI-BP]

Reviewer service for international journal and conferences

- 2021 IEEE Transaction on Service computing [TSC]
- 2021 International Journal on Software and System Modeling [SoSyM]
- 2021 Journal on Data Semantic [JODS]
- 2021 International Conference Extending Database Technology [EDBT]
- 2021 European Conference in Information Systems [ECIS]
- 2020 Requirements Engineering Journal [REJ]
- 2020 IEEE international Requirements Engineering Conference [RE] – RE Artifact
- 2020 Sensors (International Journal)
- 2020 International journal on Technology in Society [TIS]
- 2020 International Journal on Applied Science
- 2019 IEEE Access Journal
- 2019 IEEE Computer Journal [Comp.J.]
- 2019 Journal of Web Engineering [JWE]
- 2019-2020 Technology in Society Journal [TIS]
- 2019 Sustainability Journal
- 2019 Social and New Technology Challenges of Sustainable Business
- 2018-2021 International Conference on Lean and Agile Software Development [LASD]
- 2018 Journal of Software: Evolution and Process [JSME]
- 2017-2018 Business & Information Systems Engineering [BISE] Journal
- 2017-2018 Journal of Systems and Software [JSS] Journal
- 2018 International Conference on Sensor Networks and Signal Processing [SNSP]
- 2017-2018 International Journal of Information Security and Privacy [IJISP] Journal
- 2015-2016 International Conference on Advanced Information Systems Engineering [CAiSE]
- 2016 Conference on Cooperative Information Systems [CoopIS]
- 2016 International Conference on Conceptual Modelling [ER]
- 2014-2016 International Conference on Research Challenges in Information Science [RCIS]

- 2016 International Conference On Trust, Security And Privacy In Computing And Communications [TrustCom]
- 2015 International Workshop on Requirements Engineering and Law [RELAW]
- 2015 Security&Privacy (IEEE magazine)
- 2015 International conference on Service Oriented Computing and Applications [SOCA]
- 2014 International Conference on Service-Oriented Computing [ICSOC]
- 2014 Transaction on software engineering
- 2013-2014 IStar workshop

VISITING PERIODS

Bournemouth University, Bournemouth (UK) February 2020 (2 Weeks)

I visited the Department of Computing and Informatics where I gave seminars and bootstrap a collaboration on the enforcement of security and privacy requirements using psychology. The period led to a position of visiting research fellow.

SAP Research Center, Karlsruhe (DE) October 2014 (1 month)

I collaborated with security experts for the creation of a framework for the generation of part of implementation code from secure business processes diagrams. With this experience, I increase my knowledge on business processes and script languages for business artefacts.

Imperial College London, London (UK) September – October 2013 (2 months)

I worked with researchers and other Ph.D. students for the automated generation of policies for a policy enforcement point (PEP). The collaboration with researches of the Imperial College allowed me to learn other research methods and to study formal frameworks and PEP languages.

Bournemouth University, Bournemouth (UK) August 2012 (1 month)

I collaborated with researchers for the definition of the generation of business processes from social and organizational aspects of complex socio-technical systems. With this experience, I deepen my knowledge on goal-based modelling languages and research methods.

TEACHING ACTIVITIES

Ph.D. Courses

- **Security and Privacy in Socio-Technical Systems** (University of Trento - Italy, 2020/2021). I organized and I will give all lectures of a Ph.D. course of 20 hours at the ICT Doctoral School of University of Trento.

Tutorials

- **Strategies for data and computation movements in fog computing** (Jeju-Republic of South Korea, 24/06/2019). I co-organized and presented a 3 hours tutorial during RE19 conference.
- **Security Requirement engineering** (Beijing-China, 13/09/2016). I co-organized and co-presented a 6 hours tutorial during RE16 conference.

Lecturer at Politecnico di Milano

- **Digital Technologies** (5 CFU), 2019/2020, 2020/2021.

Teaching for professional audience

- **Cloud data architecture** CEFRIEL (2nd level master), 2020

Teaching assistant at Politecnico di Milano

- **Software Engineering – prova finale** 12 hours, Prof. Pierluigi San Pietro (2018/2019, 2019/2020, 2020/2021).
- **Software Engineering** 28 hours, Prof. Pierluigi San Pietro (2018/2019, 2019/2020, 2020/2021).
- **Service and Process Design** 8 hours, Prof. Pierluigi Plebani (2018/2019)

- **Information Systems** 20 hours, Prof. Pierluigi Plebani (2017/2018, 2018/2019, 2019/2020).
- **Information Systems** 20 hours, Monica Vitali (2017/2018, 2018/2019, 2019/2020).

Teaching assistant at University of Trento

- **Organizational Information Systems** 42 hours, Prof. Paolo Giorgini (2016/2017).
- **Software Engineering II** 30 hours, Prof. Fabio Casati (2016/2017).
- **Organizational Information Systems** 8 hours, Prof. Elda Paja (2014/2015, 2015/2016).
- **Agent Oriented Software Engineering** 10 hours, Prof. Paolo Giorgini (2012/2013).

Thesis co-supervision

- Giulia Mangiarcina (2020) MSc computer science - An Adaptive Multi-Agent Based Approach to Improve DaaS in Fog Computing
- Michele Cantarutti (2019) MSc computer science – Politecnico di Milano. *Improving relational database replication with GlusterFS in fog environments.*
- Alessandro Mandelli (2019) MSc computer science – Politecnico di Milano. *Analysis of data movement and computation movement with Spark for fog environments*
- Michele Grisafi (2018) BSc computer science – University of Trento. *Predizione di errori in Business Processes – Utilizzo della history log e del machine learning per una predizione efficace.*
- Roberto Passatempo (2017) BSc computer science – University of Trento. *Analisi del rischio: il passaggio da un modello socio-organizzativo ad un modello tecnico-procedurale*
- Luca Rospocher (2017) BSc computer science – University of Trento. *Risk Analysis of Socio-Technical Systems*
- Giovanni Rafael Vuolo (2017) BSc computer science – University of Trento. *Security and Risk Analysis in Business Processes: an extension of the SecBPMN2 Tool with CORAS methodology*
- Giovanni Maria Riva (2017) BSc computer science – University of Trento. *Definizione e analisi di meta-policy per la verifica automatizzata della compliance di business process*
- Daniele Giovannella (2017) BSc computer science – University of Trento. *Verifica della gestione del consenso: identificazione delle deviazioni di esecuzione di processi tramite log*
- Nicola Gilberti (2017) BSc computer science – University of Trento. *Il trattamento dei dati personali nei social network: applicazione del metodo STS al caso Facebook*
- Enrico Testori (2016) BSc computer science – University of Trento. *Scaling dinamico di microservizi*
- Marco Robol (2016) MSc computer science – University of Trento. *An Implicit Negotiation Approach for a Multi-Agent Simulation of Human-Like Coordination Mechanisms*
- Andrea Cristiano (2016) BSc computer science – University of Trento. *Privacy and Social Networks*
- Muluken Demis Ashagrie (2015) MSc computer science – University of Trento. *Enforcement of social/organizational security requirements: an air traffic management case study*
- Brian Kimose (2015) MSc computer science – University of Trento. *Modeling and analyzing ISO/IEC 27002 Standard with STS and SecBPMN2 frameworks*

PUBLICATIONS

Book

1. **Salnitri Mattia**, Jan Jürjens, Haralambos Mouratidis, Loredana Mancini, Paolo Giorgini. **Visual Privacy Management: Design and Applications of a Privacy-Enabling Platform**. Springer. 2020 <https://doi.org/10.1007/978-3-030-59944-7>

Book chapters

2. Erkuden Rios, Francesco Malmignati, Eider Iturbe, Michela D'Errico and **Mattia Salnitri** **From Consumer Requirements to Policies in Secure Services**. In *Secure and Trustworthy Service Composition: The Aniketos approach*. Pages 79 - 94, 2014. DOI: https://doi.org/10.1007/978-3-319-13518-2_6 ISBN: 978-3-319-13517-5
3. Praitano Andrea, Giovannetti Luca, Diamantopoulou Vasiliki, **Salnitri Mattia** **An introduction to privacy**. In *Visual Privacy Management: Design and Applications of a Privacy-Enabling Platform*. Pages 1-21, 2020. Springer. DOI: https://doi.org/10.1007/978-3-030-59944-7_1 (chapter of Book [1])
4. Gharib Mohamad, Giorgini Paolo, **Salnitri Mattia**, Paja Elda, Mouratidis Haris, Pavlidis Michalis, Ruiz Jose **A holistic approach for privacy requirements analysis: An industrial case study**. In *Visual Privacy Management: Design and Applications of a Privacy-Enabling Platform*. Pages 22-53, 2020. Springer. DOI: https://doi.org/10.1007/978-3-030-59944-7_2 (chapter of Book [1])

5. Ahmadian Shayan, Peldszus Sven, Jürjens Jan, *Salnitri Mattia*, Giorgini Paolo, Mouratidis Haris, Ruiz Jose **The Architecture of VisiOn privacy platform**. In Visual Privacy Management: Design and Applications of a Privacy-Enabling Platform. Pages 22-53, 2020. Springer. DOI: https://doi.org/10.1007/978-3-030-59944-7_3 (chapter of Book [1])
6. Peldszus Sven, Ahmadian Shayan, *Salnitri Mattia*, Jürjens Jan, Pavlidis Michalis, Mouratidis Haris **Visual privacy management**. In Visual Privacy Management: Design and Applications of a Privacy-Enabling Platform. Pages 109-148, 2020. Springer. DOI: https://doi.org/10.1007/978-3-030-59944-7_4 (chapter of Book [1])
7. Bonutto Dimitri, Christantoni Ilia, Kosmidis Dimitris, Micucci Franco, *Salnitri Mattia* **Empirical evaluation of the visiOn privacy platform**. In Visual Privacy Management: Design and Applications of a Privacy-Enabling Platform. Pages 109-148, 2020. Springer. DOI: https://doi.org/10.1007/978-3-030-59944-7_5 (chapter of Book [1])

International journals

8. Cinzia Cappiello, Giovanni Meroni, Barbara Pernici, Pierluigi Plebani, *Mattia Salnitri*, Monica Vitali, Diana Trojaniello, Ilio Catallo, Alberto Sanna. **Improving health monitoring with adaptive data movement in Fog Computing**. Frontiers in Robotics and AI, section Sensor Fusion and Machine Perception. Vol 7:96, 2020 DOI: <https://doi.org/10.3389/frobt.2020.00096>
9. Qusai Ramadan, Daniel Strüber, *Mattia Salnitri*, Jan Jürjens, Volker Riediger, Steffen Staab. **A Semi-Automated BPMN-based Framework for Detecting Conflicts between Security, Data-Minimization and Fairness Requirements**. International Journal of Information System Modeling and Design, 2020 DOI: <https://doi.org/10.1007/s10270-020-00781-x>.
10. *Mattia Salnitri*, Konstantinos Angelopoulos, Michalis Pavlidis, Vasiliki Diamantopoulou, Haralambos Mouratidis, Paolo Giorgini. **Modeling the Interplay of Security, Privacy and Trust in Sociotechnical Systems: A Computer-Aided Design Approach**. Software and System modelling, vol. 19, 467–491 (2020). <https://doi.org/10.1007/s10270-019-00744-x>
11. Jennifer Horkoff, Fatma Başak Aydemir, Evellin Cardoso, Tong Li, Alejandro Maté, Elda Paja, *Mattia Salnitri*, Luca Piras, John Mylopoulos, Paolo Giorgini. **Goal-Oriented Requirements Engineering An Extended Systematic Mapping Study**. Requirement Engineering Journal Vol. 24, 133–160 (2019). DOI: <https://doi.org/10.1007/s00766-017-0280-z>
12. Jennifer Horkoff, Tong Li, Feng-Lin Li, *Mattia Salnitri*, Evellin Cardoso, Paolo Giorgini and John Mylopoulos. **Using goal models down-stream: A systematic roadmap and literature review**. International Journal of Information System Modeling and Design. Vol 6(2), 1 – 42 (2015). DOI: <https://doi.org/10.4018/IJISMD.2015040101> ISSN: 1947-8186
13. *Mattia Salnitri*, Fabiano Dalpiaz and Paolo Giorgini. **Designing secure business processes with SecBPMN**. Software & Systems Modeling. Vol. 16, 737–757 (2017). DOI: <https://doi.org/10.1007/s10270-015-0499-4>

International conferences

14. Michele Cantarutti, Pierluigi Plebani, *Mattia Salnitri*. **Fast Replica of Polyglot Persistence in Microservice Architectures for Fog Computing**. International Conference on Service Oriented Computing. ICSOC 2020. DOI: https://doi.org/10.1007/978-3-030-65310-1_4 ISBN: 978-3-030-65309-5
15. Plebani Pierluigi, *Salnitri Mattia*, Vitali Monica. **Strategies for data and computation movements in fog computing**. IEEE International Requirements Engineering Conference. RE 506-507 (2019). DOI: <https://doi.org/10.1109/RE.2019.00077> ISBN: 978-172813912-8
16. Marco Robol, Elda Paja, *Mattia Salnitri*, and Paolo Giorgini **Modeling and reasoning about privacy-consent requirements**. The Practice of Enterprise Modeling. PoEM 2018. Lecture Notes in Business Information Processing, vol 335. Springer, Cham. DOI: https://doi.org/10.1007/978-3-030-02302-7_15 ISBN: 978-3-030-02301-0
17. Pierluigi Plebani, *Mattia Salnitri*, Monica Vitali. **Fog Computing and Data as a Service: A Goal-Based Modeling Approach to Enable Effective Data Movements**. In Advanced Information Systems Engineering. CAiSE 2018. Lecture Notes in Computer Science, vol 10816. Springer, Cham. DOI: https://doi.org/10.1007/978-3-319-91563-0_13 ISBN: 978-3-319-91562-3
18. Qusai Ramadan, Daniel Struber, *Mattia Salnitri*, Volker Riediger and Jan Jürjens. **Detecting Conflicts Between Data-Minimization and Security Requirements in Business Process Models**. Modelling Foundations and Applications. ECMFA 2018. Lecture Notes in Computer

- Science, vol 10890. Springer, Cham. DOI: https://doi.org/10.1007/978-3-319-92997-2_12 ISBN: 978-3-319-92996-5
19. Marco Robol, *Mattia Salnitri*, Paolo Giorgini. **Toward GDPR-Compliant Socio-Technical Systems: modeling language and reasoning framework**. In The Practice of Enterprise Modeling. PoEM 2017. Lecture Notes in Business Information Processing, Vol 305, 236-250 (2017). Springer, Cham. DOI: https://doi.org/10.1007/978-3-319-70241-4_16 ISBN: 978-3-319-70240-7
 20. Qusai Ramadan, *Mattia Salnitri*, Daniel Strüber, Jan Jürjens and Paolo Giorgini. **From Secure Business Process Modeling to Design-Level Security Verification**. In ACM/IEEE 20th International Conference on Model Driven Engineering Languages and Systems. MODELS. 123-133 (2017). DOI: <https://doi.org/10.1109/MODELS.2017.10> ISBN: 978-1-5386-3493-6
 21. Konstantinos Angelopoulos, Vasiliki Diamantopoulou, Haralambos Mouratidis, Michalis Pavlidis, *Mattia Salnitri*, Paolo Giorgini, Jose R. Ruiz. **A Holistic Approach for Privacy Protection in E-Government**. International Conference on Availability, Reliability and Security. ARES 2017. Association for Computing Machinery, New York, Art. 17, 1–10 (2017). DOI: <https://doi.org/10.1145/3098954.3098960>
 22. Mohamad Gharib, *Mattia Salnitri*, Elda Paja, Paolo Giorgini, Haralambos Mouratidis, Michalis Pavlidis, Jose F. Ruiz, Sandra Fernandez, Andrea Della Siria. **Privacy Requirements: Findings and Lessons Learned in Developing a Privacy Platform**. IEEE International Requirements Engineering Conference. RE 256-265 (2016). DOI: <https://doi.org/10.1109/RE.2016.13> ISBN: 978-1-5090-4122-0
 23. Jennifer Horkoff, Fatma Basak Aydemir, Evellin Cardoso, Tong Li, Alejandro Mate, Elda Paja, *Mattia Salnitri*, John Mylopoulos, Paolo Giorgini. **Goal-Oriented Requirements Engineering: A Systematic Literature Map**. IEEE International Requirements Engineering Conference. RE 106-115 (2016). DOI: <https://doi.org/10.1109/RE.2016.41> ISBN: 978-1-5090-4122-0
 24. *Mattia Salnitri*, Achim Brucker and Paolo Giorgini. **From Secure Business Process Models to Secure Artifact-Centric Specifications**. Enterprise, Business-Process and Information Systems Modeling. BPMDS 2015. Lecture Notes in Business Information Processing, vol 214. 246 – 262 (2015) Springer, Cham. DOI: https://doi.org/10.1007/978-3-319-19237-6_16 ISBN: 978-3-319-19236-9
 25. Jennifer Horkoff, Tong Li, Feng-Lin Li, *Mattia Salnitri*, Evellin Cardoso, Joao Pimentel, Paolo Giorgini and John Mylopoulos. **Taking Goal Models Downstream: A Systematic Roadmap**. IEEE International Conference on Research Challenges in Information Science. RCIS, 1-12 (2014) DOI: <https://doi.org/10.1109/RCIS.2014.6861036> ISBN: 978-1-4799-2393-9 **Best paper award**
 26. *Mattia Salnitri*, Fabiano Dalpiaz and Paolo Giorgini. **Modeling and Verifying Security Policies in Business Processes**. Enterprise, Business-Process and Information Systems Modeling. BPMDS 2014. Lecture Notes in Business Information Processing, vol 175. 200 – 214 (2014). Springer, Berlin, Heidelberg. DOI: https://doi.org/10.1007/978-3-662-43745-2_14 ISBN: 978-3-662-43744-5
 27. *Mattia Salnitri*, Fabiano Dalpiaz and Paolo Giorgini. **Aligning Service- Oriented Architectures with Security Requirements**. On the Move to Meaningful Internet Systems: CoopIS 2012. Lecture Notes in Computer Science, Vol 7565. 232 – 249 (2012). Springer, Berlin, Heidelberg. DOI: https://doi.org/10.1007/978-3-642-33606-5_15 ISBN: 978-3-642-33605-8

International workshops and forums

28. *Mattia Salnitri*, Mahdi Alizadeh, Daniele Giovanella, Nicola Zannone and Paolo Giorgini. **From Security-by-Design to the Identification of Security-Critical Deviations in Process Executions**. Information Systems in the Big Data Era. CAiSE workshop. Lecture Notes in Business Information Processing, vol 317 218-234 (2018). Springer, Cham DOI: https://doi.org/10.1007/978-3-319-92901-9_19 ISBN: 978-3-319-92900-2
29. *Mattia Salnitri*, Elda Paja and Paolo Giorgini. **Maintaining Se-cure Business Processes in Light of Socio-Technical Systems Evolution**. IEEE International Requirements Engineering Conference Workshops. REW (MoDRE) 155-164 (2016). DOI: <https://doi.org/10.1109/REW.2016.038> ISBN: 978-1-5090-3695-0
30. *Mattia Salnitri*, Elda Paja, Mauro Poggianella and Paolo Giorgini. **STS-Tool 3.0: Maintaining Security in Socio-Technical Systems**. In proceeding of Conference on Advanced Information System Engineering (CAiSE) Forum 2015, Pages 205-212, 2015 URN: urn:nbn:de:0074-1367-5
31. *Mattia Salnitri*, Elda Paja and Paolo Giorgini. **Preserving compliance with security requirements in socio-technical systems**. Cyber Security and Privacy. CSP. Communications in Computer and Information Science, vol 470. 49-61 (2014) Springer, Cham. DOI: https://doi.org/10.1007/978-3-319-12574-9_5 ISBN: 978-3-319-12573-2
32. *Mattia Salnitri*, Paolo Giorgini. **Transforming Socio-Technical Security Requirements in SecBPMN Security Policies**. CEUR Workshop Proceedings 1157, CEUR-WS.org (2014).
33. *Mattia Salnitri*, Paolo Giorgini. **Modeling and Verification of ATM Security Policies with SecBPMN**. IEEE

EDUCATION

Ph.D. in Computer Science

University of Trento – Trento (IT)

September 2011 – April 2016

Thesis: Secure Business Process Engineering: A Socio-Technical Approach.

Advisor: Prof. Paolo Giorgini.

Master in Computer Science

University of Trento – Trento (IT)

March 2009 – September 2011

Thesis: A Commitment Based Approach for Service Agreement Specification: Modeling Language and Methodology.

Advisor: Prof. Paolo Giorgini.

Bachelor in Computer Science

University of Trento – Trento (IT)

October 2005 – March 2009

Thesis: JamClass: an extensible course management tool.

Advisor: Prof. Fabio Casati.

PERSONAL SKILLS

Language

- Mother tongue: Italian
- Other language: English

Organizational / managerial skills:

- Good teamwork skills acquired with collaborations with researchers for publications of papers and with European project partners.
- Managerial skills acquired with the coordination of international teams, in European projects such as partners for PACAS, VisiOn and Aniketos, and with the collaboration and supervision of students, Ph.D. candidates and developers of University of Trento.
- Intercultural skills gained during my university career, where I collaborated with researchers coming from all over the world.

Relevant skills:

- I am a BPMN 2.0 expert, I deeply know the standard. I created an extension of BPMN 2.0 for security and formalized it. The work was published in research papers.
- I am a goal-based modelling languages expert, I published several papers on the argument, including three papers on surveys of goal-based modelling languages.
- I have a good knowledge on programming languages as Java, JavaScript, Node.js.
- I have a good knowledge on organization and management of European Projects, since I participated with University of Trento and Politecnico di Milano to four European projects: DITAS, Aniketos, VisiOn and PACAS. In particular, in PACAS I was the work package leader.