# Luca Viganò

Professor Dr.-Ing.

# Curriculum Vitae

Birthplace:	Genoa, Italy
Citizenship:	Italian
Gender:	
Languages:	Native Italian, near-to-native English and German,
	fluent French, basic Portuguese
Current Position:	Professor
Address:	Department of Informatics
	King's College London
	Bush House, 30 Aldwych
	London WC2B 4BG
	UK

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# 1 One-Page Résumé

10/2013 - today	Full Professor at the Department of Informatics, King's College London, UK.
01/2018 - today	Head of the Cybersecurity Group, Dep. of Informatics, King's College London.
08/2022 - today	$\operatorname{IES}$ (International, Engagement, Service) Ambassador for King's College
	London.
08/2020 - today	Vice-Dean (Enterprise & Engagement), Faculty of Natural, Mathematical &
	Engineering Sciences, King's College London. [This role encompasses: In- ternational Affairs, Commercialisation, Impact, Service, London, Culture, Science Gallery London]
08/2020-07/2022	Global Envoy for King's College London.
08/2017-07/2020	Vice-Dean (External Relations), Faculty of Natural & Mathematical Sciences,
11/2014_07/2017	King's Conege London.
11/2014-07/2017	King's College London.
02/2017 - 07/2017	Interim Head of the Department of Informatics, King's College London.

Prof. Dr. Luca Viganò received his Ph.D. in Computer Science from the University of Saarbr"

Habilitation in Computer Science from the University of Freiburg (DE) in 2003. He held a senior research scientist position in the Information Security Group of ETH Zurich (CH) 01/2003-09/2006, and 10/2006-09/2013 he was Associate Professor at the University of Verona (IT), where he was the head of the Research Group in Information Security.

His research focuses on formal methods and tools for the specification, verification, testing and construction of systems for cybersecurity and privacy. This includes security and cryptographic protocols, web services and web applications, authentication and privacy systems, socio-technical systems and cyber-physical systems. He also works on explainable security.

On these topics, he has taught several classes, tutorials, and industrial courses, and has co-authored more than 130 peer-reviewed publications. He has served as PC-chair and PC-member in over 180 international conferences and workshops, some of which he founded or helped found.

He has supervised 6 PostDocs, 15 Ph.D. students, 70+ MSc students and 150+ BSc students.

He is an excellent and committed teacher, as recognized yearly by his peers and students; for instance, in 2018, he won the "King's College Teaching Excellence Award" for "Education Experience".

He has been the Principal Investigator of 6 international and national projects (for a total of about  $\pounds 17M$ ), and co-I of 10 international and national projects (for a total of about  $\pounds 3.5M$ ).

#### Five representative publications:

- Diego Sempreboni, Luca Viganò'. A Mutation-Based Approach for the Formal Analysis of Security Ceremonies. Journal of Computer Security 31(4):293–364, 2023.
- Luca Viganò. Formal Methods for Socio-technical Security (Formal and Automated Analysis of Security Ceremonies), Proceedings of Coordination 2022, Springer, pp. 3–14, 2022.
- Ruggero Lanotte, Massimo Merro, Andrei Munteanu, Luca Viganò. A Formal Approach to Physicsbased Attacks in Cyber-Physical Systems, ACM Transactions on Privacy and Security 23(1):1–41, 2020.
- 4. Luca Viganò and Daniele Magazzeni. *Explainable Security*, Proceedings of HotSpot'20, IEEE CS Press, 2020.
- 5. Sebastian Mödersheim, Luca Viganò. *Alpha-Beta Privacy*, ACM Transactions on Privacy and Security 22(1):1–35, 2019.

# 2 Academic Appointments

10/2013 - today	Full Professor in Computer Science at the Department of Informatics, King's College London, UK.
10/2006-09/2013	Associate Professor ("Professore Associato confermato") at the Department of Computer Science of the University of Verona, Italy.
01/2003-09/2006	Senior assistant ("Oberassistent") at the Department of Computer Science of the ETH Zurich, Switzerland.
10/1997-12/2002	Research scientist ("Wissenschaftlicher Assistent, C1") at the Institute for Computer Science of the Albert-Ludwigs-Universität Freiburg, Germany.
03/1994– $09/1997$	PhD student ("Wissenschaftlicher Mitarbeiter") at the Max-Planck-Institut for Computer Science, Saarbrücken, Germany.

# 3 Education

- 2016 King's Futures Leader Programme. King's College London, UK.
- 2013 Habilitation to the Position of Full Professor for Computer Science, Italian Ministry for Education, University and Research (MIUR).
- 03/2004 Qualification aux fonctions de Professeur en Informatique des Universités Françaises. (Habilitation to the Position of University Professor for Computer Science for French Universities).
- 07/2003 Habilitation and Venia Legendi in Informatik ("Privatdozent"), Albert-Ludwigs-Universität Freiburg, Germany.

Thesis: Formal Methods for the Analysis of IT-Security.

- 09/1997 PhD in computer science, Universität des Saarlandes, Saarbrücken, Germany. Thesis: A Framework for Non-Classical Logics.
  Supervisors: Prof. Dr. David Basin and Prof. Dr. Harald Ganzinger. Mark: Summa cum laude (1.0/1.0).
  Winner of the Dr.-Eduard-Martin Prize for the best PhD dissertation at the technical faculty of the Universität des Saarlandes for the academic year 1996/1997.
- 01/1995 Esame di Stato per l'abilitazione alla professione di Ingegnere Elettronico (State professional qualifying examination in electronic engineering), Università di Genova, Italy.
- 01/1994 Laurea in ingegneria elettronica (Master of Science in Electronic Engineering), Università di Genova, Italy.

Thesis: Sintesi ed esecuzione di strategie di prova nella metateoria formale di un dimostratore interattivo ("Synthesis and execution of proof strategies in the formal metatheory of an interactive theorem prover").

Mark: 110/110 with highest honors ("lode e dignità di stampa").

05/1987 Abitur (High-school diploma) at the Deutsche Schule Genua, Genova, Italy. Mark 1.0 (60/60).

# 4 Honors

I list here the main honors that I have received. They are described in more detail in other parts of this CV.

- 2018 "King's College Teaching Excellence Award" for "Education Experience".
- 2018 "Teaching Excellence Award of the Faculty of Natural & Mathematical Sciences".
- 2015 "Outstanding MSc Supervisor Award of the Faculty of Natural & Mathematical Sciences".
- 2015 "Best Student Paper Award" at ESORICS 2015 for the paper [C56].
- 2015 "Certification of Appreciation" of the IEEE Computer Society for services rendered.
- 2006 AVISPA Project shortlisted for the "EU Descartes Prize for Research 2006".
- 2005 "Premio Pitagora" for the best multimedia event for the popularization of mathematics. (This was awarded for my play "Galois" about the French mathematician Évariste Galois. See also my papers [O4, O3, O2, O1].)
- 1998 Dr.-Eduard-Martin Prize for the best PhD dissertation at the technical faculty of the Universität des Saarlandes for the academic year 1996/1997.

Moreover, several of my PhD, MSc and UG students have won international, national or universityspecific awards for the dissertations and projects that they have carried out under my supervision.

# 5 Administration, Citizenship and Service

# 5.1 Didactic and Scientific Appointments and Initiatives

#### Appointments: Active

- 6. IES (International, Engagement, Service) Ambassador for King's College London, UK, since August 2020.
- 5. Member of the Advisory Board of the "Centro sicurezza, rischio e vulnerabilitÃ", Università di Genova, Italy, since 2022.
- 4. Vice-Dean (Enterprise & Engagement), Faculty of Natural, Mathematical & Engineering Sciences, King's College London, UK, since August 2020. This role encompasses: International Affairs, Commercialisation, Impact, Service, London, Culture, Science Gallery London, etc.
- 3. Member of the Collegio dei Docenti del Programma di dottorato in "Systems Science", IMT Lucca, Italy, since 2020.
- 2. Head of the Cybersecurity Group, Department of Informatics, King's College London, UK, since January 2018.

The Cybersecurity Group (www.kcl.ac.uk/research/profile/cys), which comprises 14 permanent academic staff members and their postdocs and PhD students, studies design, modelling, analysis, verification and testing of networks and systems in order to tackle cybersecurity and privacy problems that are important to industry, society and everyone living in a technologically dependent world.

The Cybersecurity Group is part of the KCL Cybersecurity Centre (www.kcl.ac.uk/research/profile/cybersecurity-centre), an EPSRC-NCSC Academic Centre of Excellence in Cyber Security Research (ACE-CSR).

1. Chair of the "Academic Ways of Working" Group, King's College London, UK, since February 2017.

#### Appointments: Completed

- 8. Global Envoy for King's College London, UK, August 2020 July 2022.
- Vice-Dean (External Relations), Faculty of Natural and Mathematical Sciences, King's College London, UK, August 2017 – July 2020.
   This role encompasses: International Affairs, Commercialisation, Service, London, Culture, Science Gallery London, etc.
- 6. Interim Head of the Department of Informatics, King's College London, UK, February 1 July 31, 2017.
- Vice-Dean (International), Faculty of Natural and Mathematical Sciences, King's College London, UK, November 2014 – July 2017.
- 4. Chair of the Industrial Advisory Board, Department of Informatics, King's College London, UK, January 2014 January 2015.
- Member of the Teaching Staff Council of the PhD Program in Computer Science, Università di Verona, December 2006 – September 2013.
- 2. Member of the Faculty Council of the Faculty of Mathematical, Physical and Natural Science of the University of Verona, October 2006 September 2013.
- 1. Member of the Department Council of the Department of Computer Science of the University of Verona, October 2006 September 2013.

#### **Elective Appointments: Completed**

- Member of the Steering Committee of UNICA, the Network of Universities from the Capitals of Europe, June 2021 – June 2023.
- Director of the PhD Program in Computer Science, University of Verona, June 2009 September 2013.
- Referee (contact person) for Student Curriculum Counseling of the Faculty of Mathematical, Physical and Natural Science of the University of Verona, March 2007 – September 2013.
- 11. Member of the Selection Committee of Ph.D. program in Computer Science of the University of Verona, October 2011.
- Member of "Comitato di Area CIVR 01 Scienze Matematiche ed Informatiche" for the evaluation of research in mathematics and computer science at the Department of Computer Science of the University of Verona for the academic years 2008/2009 – 2009/2010 – 2010/2011.
- Member of the Founding Committee of the Master's Program in "Engineering and Computer Science" ("Laurea Magistrale in Ingegneria e scienze informatiche") of the University of Verona, 2009 (the course started in the fall of 2009).
- Member of the Didactic Committee of the Department of Computer Science of the University of Verona, January 2007 — 2010.
- 7. Referee (contact person) for the Information Systems of the Faculty of Mathematical, Physical and Natural Science of the University of Verona, March 2007 September 2009.
- Member of the Selection Committee of Ph.D. program in Computer Science of the University of Verona, October 2006.
- 5. Member of the Department Council of the Department of Computer Science of the ETH Zürich, from June 2005 to September 2006.
- 4. Co-organizer of the Major-Program "Information Security" in the context of the Master Program of the ETH Zürich, 2004.
- 3. Member of the Faculty Council ("Fakultätsrat") of the Faculty of Applied Sciences of the Albert-Ludwigs-Universität Freiburg, Germany, from 2000 to 2003.
- 2. Member of the Library Commission of the Faculty of Applied Sciences of the Albert-Ludwigs-Universität Freiburg, Germany, from 1997 to 2002.
- Reference staff member of the Faculty of Applied Sciences of the Albert-Ludwigs-Universität Freiburg, Germany, for the student exchange program in the context of the Socrates Bilateral Agreement between the Albert-Ludwigs-Universität Freiburg and DIST, Università di Genova (DIST reference staff member: Prof. Dr. Alessandro Armando), 2001–2003.

# 5.2 Working Groups and Conference Committees

#### Working Group: Member

1. **IFIP WG 1.7:** Member of the IFIP WG 1.7 "Theoretical Foundations of Security Analysis and Design" since June 2008.

#### Steering Committee: Chair

1. FCS: Chair of the Steering Committee of the FCS (Foundations of Computer Security) Workshop from October 2008 to October 2013.

#### Steering Committee: Member

- 5. **CSF:** Member of the Steering Committee of the IEEE Computer Security Foundations Symposium since January 2014.
- 4. **POST:** Member of the Steering Committee of the ETAPS Conference on Principles of Security and Trust since its inception in 2011 until 2015, and from 2016 until 2018.
- 3. **TAP:** Member of the Steering Committee of the International Conference on Tests & Proofs, June 2013 December 2017.
- 2. FCS: Member of the Steering Committee of the FCS (Foundations of Computer Security) Workshop since September 2006.
- 1. **FTP:** Member of the Steering Committee of the FTP (First-Order Theorem Proving) Workshop, November 2003 December 2004.

#### **Organizing Committee: Chair**

- 2. CSF 2015: General Chair of 28th IEEE Computer Security Foundations Symposium, University of Verona, Italy, June 2015.
- 1. **CSF 2014:** General Chair of 27th IEEE Computer Security Foundations Symposium, Vienna University of Technology (TU Wien), Austria, July 19-22, 2014.

#### **Organizing Committee: Finance Chair**

- CSF 2023: Finance Chair of 36th IEEE Computer Security Foundations Symposium, Dubrovnik, Croatia, July 9-13, 2023.
- CSF 2022: Finance Chair of 35th IEEE Computer Security Foundations Symposium, Haifa, Israel, August 7-10, 2022.
- 4. CSF 2021: Finance Chair of 34th IEEE Computer Security Foundations Symposium, Dubrovnik, Croatia, June 21-25, 2021.
- CSF 2020: Finance Chair of 33rd IEEE Computer Security Foundations Symposium, Boston University, USA, June 22-26, 2020.
- CSF 2019: Finance Chair of 32nd IEEE Computer Security Foundations Symposium, Hoboken, NJ, USA, June 24-27, 2019.
- CSF 2018: Finance Chair of 31st IEEE Computer Security Foundations Symposium, University of Oxford, UK, July 9-12, 2018.

#### Organizing Committee: Workshop Chair

 Euro S&P 2020: 5th IEEE European Symposium on Security and Privacy, Genova, Italy, September 11–17, 2020.

#### Program Committee: Chair

- 17. **STAST 2021:** 11th International Workshop on Socio-Technical Aspects in Security, affiliated with the 25th European Symposium on Research in Computer Security (ESORICS 2021), online workshop, 2021. Co-chair of the Program Committee with Simon Parkin.
- 16. **STAST 2020:** 10th International Workshop on Socio-Technical Aspects in Security, affiliated with the 25th European Symposium on Research in Computer Security (ESORICS 2020), Guildford, UK, September 2020. Co-chair of the Program Committee with Thomas Groß.
- 15. **Post 2016:** 5th Conference on Principles of Security and Trust, ETAPS 2016. Co-chair of the Program Committee with Frank Piessens.

- 14. HotSpot 2015: 3rd Workshop on Hot Issues in Security Principles and Trust, affiliated with ETAPS 2015, April 2015, London, UK. Chair of the Program Committee.
- SHPCS 2014: 9th Workshop on Security and High Performance Computing Systems, affiliated with the International Conference on High Performance Computing & Simulation (HPCS 2014), Bologna, Italy, July 21–25, 2014. Co-chair of the Program Committee with Luca Spalazzi.
- SHPCS 2013: 8th Workshop on Security and High Performance Computing Systems (SHPCS 2013), affiliated with the International Conference on High Performance Computing & Simulation (HPCS 2013), Helsinki, Finland, July 1–5, 2013. Co-chair of the Program Committee with Luca Spalazzi.
- 11. **TAP 2013:** The Seventh International Conference on Tests and Proofs, Budapest, Hungary, June 2013. Co-chair of the Program Committee with Margus Veanes.
- SecTest 2012: The Third International Workshop on Security Testing, affiliated with ICST 2012, Montreal, Canada, April 2012. Co-chair of the Program Committee with Keqin Li and Wissam Mallouli.
- SecTest 2011: The Second International Workshop on Security Testing, affiliated with ICST 2011, Berlin, Germany, March 2011. Co-chair of the Program Committee with Keqin Li and Wissam Mallouli.
- ARSPA-WITS 2009: Joint Workshop on Automated Reasoning for Security Protocol Analysis and Issues in the Theory of Security, affiliated with ETAPS 2009, York, UK, March 28–29, 2009. Co-chair of the Program Committee with Pierpaolo Degano.
- SECURWARE 2008: The Second International Conference on Emerging Security Information, Systems and Technologies, Cap Esterel, France, August 25–31, 2008. Co-chair of the Technical Program Committee with Achilles Kameas and Bogdan Ghita.
- 6. FCS-ARSPA-WITS 2008: Workshop on Foundations of Computer Security, Automated Reasoning for Security Protocol Analysis and Issues in the Theory of Security, affiliated with LICS 2008 and CSF 21, Pittsburgh, PA, USA, June 21–22, 2008. Co-chair of the Program Committee with Lujo Bauer, Jerry den Hartog, and Sandro Etalle.
- FCS-ARSPA 2007: Workshop on Foundations of Computer Security and Automated Reasoning for Security Protocol Analysis, affiliated with LICS'07 and ICALP'07, Wroclaw, Poland, July 8-9, 2007. Co-chair of the Program Committee with Pierpaolo Degano, Ralf Küsters, and Steve Zdancewic.
- FCS-ARSPA 2006: Joint Workshop on Foundations of Computer Security and Automated Reasoning for Security Protocol Analysis, FLoC/Lics Workshop, Seattle, USA, August 15–16, 2006. Co-chair of the Program Committee with Pierpaolo Degano, Ralf Küsters, and Steve Zdancewic.
- ARSPA 2005: ICALP 2005 Workshop on Automated Reasoning for Security Protocols Analysis, Lisbon, Portugal, July 16, 2005. Co-chair of the Program Committee with Pierpaolo Degano.
- ARSPA 2004: IJCAR'04 Workshop on Automated Reasoning for Security Protocols Analysis, Cork, Ireland, July 4, 2004. Co-chair of the Program Committee with Prof. Alessandro Armando.
- LD 1998: the First International Workshop on Labelled Deduction, Albert-Ludwigs-Universität Freiburg, September 7–9, 1998. Co-chair of the Program Committee with David Basin, Marcello D'Agostino, Dov Gabbay, and Seán Matthews.

#### **Program Committee: Member**

- 168. USENIX Security 2024: 33rd USENIX Security Symposium, Philadelphia, PA, USA, August 14–16, 2024.
- 167. ASIACCS 2024: 19th ACM ASIA Conference on Computer and Communications Security (ACM ASIACCS 2024), Singapore, July 1–5, 2024.
- 166. MetaCom 2023: IEEE MetaCom 2023 (Security, Privacy and Trust Track), Tianjin, China, November 18-20, 2023.
- 165. NSS 2023: 17th International Conference on Network and System Security, University of Kent in Canterbury, UK, August 14-16, 2023.
- 164. USENIX Security 2023: 32nd USENIX Security Symposium, Anaheim, CA, USA, August 9–11, 2023.
- ASIACCS 2023: 18th ACM ASIA Conference on Computer and Communications Security (ACM ASIACCS 2023), Melbourne, Australia, July 10–14, 2023.
- SVCC 2023: IEEE Silicon Valley Cybersecurity Conference, San Jose, CA, USA, May 17–19, 2023.
- ICICS 2022: 24th International Conference on Information and Communications Security, Nankai University, Tianjin, China, November 18–20, 2022.
- 160. Esorics 2022: 27th European Symposium on Research in Computer Security, Copenhagen, Denmark, September 26–30, 2022.
- 159. USENIX Security 2022: 31st USENIX Security Symposium, Boston, MA, USA, August 10–12, 2022.
- ASIACCS 2022: 17th ACM ASIA Conference on Computer and Communications Security (ACM ASIACCS 2022), Nagasaki, Japan, May 30 – June 3, 2022.
- 157. ICICS 2021: 23rd International Conference on Information and Communications Security, Chongqing, China, November 19–21, 2021.
- 156. VSC 2021: 9th Edition of Track on Validation of Safety critical Collaboration systems in the 30th IEEE WETICE International Conference, online, October 27–29, 2021.
- 155. Esorics 2021: 26th European Symposium on Research in Computer Security, online conference, October 4–8, 2021.
- 154. ACM SAC 2021 Security Track: Security Track of the 36th ACM/SIGAPP Symposium On Applied Computing, online, March 22–26, 2021.
- 153. **IEEE Cloud 2020:** 6th International Conference on Information Systems Security and Privacy, Beijing, China, October 19–23, 2020.
- 152. Esorics 2020: 25th European Symposium on Research in Computer Security, Guildford, Surrey, UK, September 14–18, 2020.
- 151. HotSpot 2020: Workshop on Hot topics in the Principles of Security and Trust, affiloated with Euro S&P, Genova, Italy, September 7, 2020.
- 150. ICICS 2020: 22nd International Conference on Information and Communications Security, Copenhagen, Denmark, August 24–27, 2020.
- 149. **GraMSec 2020:** The Seventh International Workshop on Graphical Models for Security, Co-located with CSF 2020, June 22, 2020.
- 148. VSC 2020: 8th Edition of Track on Validation of Safety critical Collaboration systems in the 29th IEEE WETICE International Conference, Bayonne, France, June 10–12, 2020.
- AI4P 2020: 1st International Workshop on AI for Privacy, affiliated with ECAI 2020, Santiago de Compostela, Spain, June 9, 2020.
- DeceptECAI2020: 1st International Workshop on Deceptive AI, affiliated with ECAI 2020, Santiago de Compostela, Spain, June 8–9, 2020.

- 145. WTSC 2020: 4th Workshop on Trusted Smart Contracts, in association with Financial Cryptography 2020, Kota Kinabalu, Sabah, Malaysia, February 14, 2020.
- 144. **STAST 2019:** 9th Workshop on Socio-Technical Aspects in Security and Trust, affiliated with the European Symposium on Research in Computer Security (ESORICS 2019), Luxembourg, September 26, 2019.
- 143. Esorics 2019: 24th European Symposium on Research in Computer Security, Luxembourg, September 23–27, 2019.
- 142. **Tableaux 2019:** 28th International Conference on Automated Reasoning with Analytic Tableaux and Related Methods, London, September 3–5, 2019.
- 141. SHPCS 2019: 14th International Workshop on Security and High Performance Computing Systems, Dublin, Ireland, July 15–19, 2019.
- 140. **IEEE Cloud 2019:** 5th International Conference on Information Systems Security and Privacy, Milan, Italy, July 8–13, 2019.
- Euro S&P 2019: 4th IEEE European Symposium on Security and Privacy, Stockholm, Sweden, June 17–19, 2019.
- 138. VSC 2019: 7th Edition of Track on Validation of Safety critical Collaboration systems in the 28th IEEE WETICE International Conference, Capri, Italy, June 12–14, 2019.
- 137. Re-coding Black Mirror 2019: workshop affiliated with The Web Conference 2019, San Francisco, USA, May 13–14, 2019.
- ICISSP 2019: 5th International Conference on Information Systems Security and Privacy, Prague, Czech Republic, February 23–25, 2019.
- 135. WTSC 2019: 3rd Workshop on Trusted Smart Contracts, in association with Financial Cryptography 2019, St. Kitts Marriott Resort, St. Kitts, February 22, 2019.
- 134. Re-coding Black Mirror 2019: workshop affiliated with CPDP2019, Brussels, Belgium, January 30, 2019.
- 133. **STAST 2018:** 8th Workshop on Socio-Technical Aspects in Security and Trust, affiliated with the Annual Computer Security Applications Conference (ACSAC 2018), San Juan, Puerto Rico, USA, December 4, 2018.
- 132. C&TC 2018: 8th International Symposium on Secure Virtual Infrastructures Cloud and Trusted Computing, La Valletta, Malta, October 22–23, 2018.
- ATC 2018: 15th IEEE International Conference on Advanced and Trusted Computing, Track 5 (Trust Models, Management and Standards), Guangzhou, China, October 8–12, 2018.
- Esorics 2018: 23rd European Symposium on Research in Computer Security, Barcelona, Spain, September 3–7, 2018.
- 129. **SDSG@DSD 2018:** Special session on "System Design for the Smart Grids" at the 21st Euromicro Conference on Digital System, Prague, Czech Republic, August 29–31, 2018.
- 128. EICNCL 2018: International Workshop On External And Internal Calculi For Non-classical Logics, associated with FLoC 2018 and IJCAR 2018, Oxford, UK, July 19, 2018.
- 127. SHPCS 2018: 13th Workshop on Security and High Performance Computing Systems, affiliated with the 16th International Conference on High Performance Computing & Simulation (HPCS 2018), Orléans, France, July 16–20, 2018.
- 126. IJCAR 2018: 9th International Joint Conference on Automated Reasoning, part of FLoC 2018 and IJCAR 2018, Oxford, UK, July 14–17, 2018.
- 125. VSC 2018: 6th Edition of Track on Validation of Safety critical Collaboration systems in the 27th IEEE WETICE International Conference, Paris, France, June 27–29, 2018.
- 124. POST 2018: 7th Conference on Principles of Security and Trust, ETAPS, Thessaloniki, Greece, April 14–21, 2018.

- 123. WTSC 2018: 2nd Workshop on Trusted Smart Contracts, in association with Financial Cryptography 2018, Santa Barbara Beach Resort, USA, March 2, 2018.
- ICISSP 2018: 4th International Conference on Information Systems Security and Privacy, Funchal, Madeira, Portugal, January 22–24, 2018.
- C&TC 2017: 7th International Symposium on Cloud Computing, Trusted Computing and Secure Virtual Infrastructures, Rhodes, Greece, October 23–27, 2017.
- 120. Tyrr 2017: 2017 Tyrrhenian International Workshop on Digital Communications "Towards A Smart And Secure Future Internet", Mondello (Palermo), Italy, September 18–20, 2017.
- ESORICS 2017: 22nd European Symposium on Research in Computer Security, Oslo, Norway, September 11–13, 2017.
- 118. DataMod 2017: 6th International Symposium "From Data to Models and Back (DataMod)", Trento, Italy, September 4–5 September, 2017.
- 117. **SDSG@DSD 2017:** Special session on "System Design for the Smart Grids" at the 20th Euromicro Conference on Digital System, Vienna, Austria, August 30 September 1, 2017.
- 116. GraMSec 2017: 4th International Workshop on Graphical Models for Security, affiliated with CSF 2017, Santa Barbara, CA, Usa, August 21, 2017.
- 115. CSL 2017: 26th EACSL Annual Conference on Computer Science Logic, Stockholm, Sweden, August 20–24, 2017.
- 114. ATC 2017: 14th IEEE International Conference on Advanced and Trusted Computing, Track 5 (Trust Models, Management and Standards), held in conjunction with the 2017 Smart World Congress, San Francisco Bay Area, USA, August 4–8, 2017.
- 113. VSC 2017: 5th Edition of Track on Validation of Safety critical Collaboration systems in the 26th IEEE WETICE International Conference, Poznan, Poland, July 21–23, 2017.
- TAP 2017: The 11th International Conference on Tests & Proofs, organised as part of STAF 2017, Marburg, Germany, July 17–21, 2017.
- 111. **POST 2017:** 6th Conference on Principles of Security and Trust, ETAPS, Uppsala, Sweden, April 23–29, 2017.
- 110. WTSC 2017: 1st Workshop on Trusted Smart Contracts, in association with Financial Cryptography 17, Malta, April 07, 2017.
- 109. CPSS 2017: 3rd ACM Cyber-Physical System Security Workshop, held in conjunction with ACM AsiaCCS'17, Abu Dhabi, UAE, April 2, 2017.
- HASE 2017: 18th International Symposium on High Assurance Systems Engineering, Singapore, January 12–14, 2017.
- 107. C&TC 2016: 6th International Symposium on Cloud Computing, Trusted Computing and Secure Virtual Infrastructures, Rhodes, Greece, October 24–25, 2016.
- 106. ESORICS 2016: 21th European Symposium on Research in Computer Security, Heraklion, Crete, Greece, September 26–30, 2016.
- 105. **SDSG@DSD 2016:** Special session on "System Design for the Smart Grids" at the 19th Euromicro Conference on Digital System, Limassol, Cyprus, August 31 September 2, 2016.
- 104. CSL 2016: 25th EACSL Annual Conference on Computer Science Logic, Marseille, France, August 29 – September 1, 2016.
- 103. SECRYPT 2016: 13th International Conference on Security and Cryptography, part of ICE-TE, the 13th International Joint Conference on e-Business and Telecommunications, Lisbon, Portugal, July 26–28, 2016.
- 102. ATC 2016: 13th IEEE International Conference on Advanced and Trusted Computing, Track 5 (Trust Models, Management and Standards), held in conjunction with the 2016 Smart World Congress, Toulouse, France, July 18-21, 2016.

- ARQNL 2016: 2nd Workshop on Automated Reasoning in Quantified Non-Classical Logics (ARQNL), affiliated with IJCAR 2016, Coimbra, Portugal, July 1, 2016.
- 100. GraMSec 2016: 3rd International Workshop on Graphical Models for Security (GraMSec), affiliated with CSF 2016, Lisbon, Portugal, June 27, 2016.
- PhDs in Logic 2016: PhDs in Logic VIII, Technische Universität Darmstadt, Germany, May 9–11,2016.
- FIoTA 2016: Future Internet and Internet of Things Applications, Puebla, Mexico, May 25–27, 2015.
- C&TC 2015: 5th International Symposium on Cloud Computing, Trusted Computing and Secure Virtual Infrastructures, Rhodes, Greece, October 26–28, 2015.
- 96. Esorics 2015: 20th European Symposium on Research in Computer Security, Vienna, Austria, September 21–25, 2015.
- Tableaux 2015: The 24th International Conference on Automated Reasoning with Analytic Tableaux and Related Methods, Wroclaw, Poland, September 20–24, 2015.
- FroCoS'15: 10th International Symposium on Frontiers of Combining Systems, Wroclaw, Poland, September 20–24, 2015.
- SDSG@DSD 2015: Special session on "System Design for the Smart Grids" at the 18th Euromicro Conference on Digital System, Funchal, Madeira, Portugal, August 26–28, 2015.
- TAP 2015: The 9th International Conference on Tests & Proofs, L'Aquila, Italy, July 20–24, 2015.
- SECRYPT 2015: The 12th International Conference on Security and Cryptography, part of ICETE, the 12th International Joint Conference on e-Business and Telecommunications, Colmar, Alsace, France, July 20–22, 2015.
- STAST 2015: The 5th Workshop on Socio-Technical Aspects in Security and Trust, affiliated with CSF 2015, Verona, Italy, July 13, 2015.
- 89. GraMSec 2015: 2nd International Workshop on Graphical Models for Security (GraMSec), affiliated with CSF 2015, Verona, Italy, July 13, 2015.
- FCS 2015: Workshop on Foundations of Security and Privacy, affiliated with CSF 2015, Verona, Italy, July 13, 2015.
- 87. SecTest 2015: The Sixth International Workshop on Security Testing, affiliated with ICST 2015, Graz, Austria, April 13, 2015.
- TIME 2014: The 21st International Symposium on Temporal Representation and Reasoning (TIME 2014), Verona, Italy, September 8–10, 2014.
- SECRYPT 2014: The 11th International Conference on Security and Cryptography, part of ICETE, the 11th International Joint Conference on e-Business and Telecommunications, Vienna, Austria, August 28–30, 2014.
- 84. TAP 2014: The 8th International Conference on Tests & Proofs, York, UK, July 24–25, 2014.
- ARQNL 2014: Workshop on Automated Reasoning in Quantified Non-Classical Logics (ARQNL), affiliated with IJCAR 2014, Vienna, Austria, July 23, 2014.
- ADDCT 2014: Automated Deduction: Decidability, Complexity, Tractability Workshop, affiliated with IJCAR 2014 and RTA 2014, Vienna Summer of Logic, Vienna, Austria, July 18, 2014.
- MOCHAP 2014: The 1st ICAPS Workshop on Model Checking and Automated Planning, Portsmouth, USA, June 22-23, 2014.
- SECOTS 2014: The Fourth International Symposium on Security in Collaboration Technologies and Systems (SECOTS 2014), affiliated with the International Conference on Collaboration Technologies and Systems (CTS 2014) in Minneapolis (Minnesota, USA), May 19-23, 2014.

- 79. GraMSec 2014: The International Workshop on Graphical Models for Security (GraMSec), affiliated with ETAPS 2014, Grenoble, France, April 12, 2014.
- 78. HotSpot 2014: The 2nd Workshop on Hot Issues in Security Principles and Trust (HotSpot 2014), affiliated with ETAPS 2014, Grenoble, France, April 5, 2014.
- 77. SecTest 2014: The Fifth International Workshop on Security Testing, affiliated with ICST 2014, Cleveland, Ohio, March 31 April 4, 2014.
- SmartGridSec 2014: The 2nd Workshop on Smart Grid Security, affiliated with the International Symposium on Engineering Secure Software and Systems (ESSoS'14), Munich, Germany, February 26, 2014.
- 75. MACIS 2013: The Fifth International Conference on Mathematical Aspects of Computer and Information Sciences Nanning, China, December 11-13, 2013.
- ESORICS 2013: The 18th European Symposium on Research in Computer Security, Egham, UK, September 9–13, 2013.
- SECRYPT 2013: The 10th International Conference on Security and Cryptography, part of ICETE, the 10th International Joint Conference on e-Business and Telecommunications, Rejkjavik, Iceland, July 29–31, 2013.
- 72. **STAST 2013:** The 3rd International Workshop on Socio-Technical Aspects in Security and Trust (STAST 2013), affiliated with the 26th IEEE Computer Security Foundations Symposium (CSF), New Orleans, USA, June 29, 2013.
- 71. ADDCT 2013: Automated Deduction: Decidability, Complexity, Tractability Workshop, affiliated with CADE-24, Lake Placid, New York, USA, June 10, 2013.
- SecTest 2013: The Fourth International Workshop on Security Testing, affiliated with ICST 2013, Luxembourg, March 18-22, 2013.
- HotSpot 2013: The 1st Workshop on Hot Issues in Security Principles and Trust (HotSpot 2013), affiliated with ETAPS 2013, Rome, Italy, March 17, 2013.
- POST 2013: Conference on Principles of Security and Trust, part of ETAPS 2013, Rome, Italy, March 16–24, 2013.
- MOVEP 2012: The 10th School on MOdelling and VErifying parallel Processes, CIRM, Marseille, France, December 3–7, 2012.
- 66. WooPS 2012: First International Workshop on Petri Net-based Security (WooPS 2012), a satellite event of the 33rd International Conference on Application and Theory of Petri Nets and Concurrency and of the 12th International Conference on Application of Concurrency to System Design, Hamburg, Germany, June 26, 2012.
- POST 2012: Conference on Principles of Security and Trust, part of ETAPS 2012, Tallin, Estonia, March 24 – April 1, 2012.
- TAP 2012: The 6th International Conference on Tests & Proofs, Prague, Czech Republic, May 31 – June 1, 2012.
- TOSCA 2011: Theory of Security and Applications, Saarbruecken, Germany, March 26–27, 2011.
- Fast 2011: The 8th International Workshop on Formal Aspects of Security & Trust, co-located with ESORICS 2011, Leuven, Belgium, September 15–16, 2011.
- SecCo 2011: The 9th International Workshop on Security Issues in Concurrency, Aachen, Germany, September 5, 2011.
- SECURWARE 2011: The Fifth International Conference on Emerging Security Information, Systems and Technologies, Côte d'Azur, France, August 21–27, 2011.
- Tableaux 2011: The 20th International Conference on Automated Reasoning with Analytic Tableaux and Related Methods, Bern, Switzerland on July 4–8, 2011.

- ARSPA-WITS 2010: Joint Workshop on Automated Reasoning for Security Protocol Analysis and Issues in the Theory of Security, affiliated with ETAPS 2011 Saarbrücken, Germany, March 26–27, 2011.
- 57. CRiSIS 2010: 5th International Conference on Risks and Security of Internet and Systems (CRiSIS 2010), Montreal, Canada, October 10–13, 2010.
- FAST 2010: The 7th International Workshop on Formal Aspects of Security & Trust, colocated with the 8th IEEE International Conference on Software Engineering and Formal Methods (SEFM2010), CNR, Pisa, Italy, September 16–17, 2010.
- LIS 2010: Logics in Security Workshop, co-located with ESSLI2010, Copenhagen, Denkmark, August 9–13, 2010.
- SECURWARE 2010: The Fourth International Conference on Emerging Security Information, Systems and Technologies, Venice, Italy, July 18–25, 2010.
- FCS-PrivMod 2010: Workshop on Foundations of Security and Privacy, affiliated with FLoC 2010, Edinburgh, UK, July 14–15, 2010.
- SecArt 2010: Second Workshop on Intelligent Security (Security and Artificial Intelligence), Atlanta, Georgia, USA, July 11, 2010.
- PSPL 2010: Proof Systems for Program Logics Workshop, affiliated with FLoC 2010, Edinburgh, UK, July 14–15, 2010.
- MOVEP 2010: The 9th School on MOdelling and VErifying parallel Processes, Aachen, Germany, June 28 – July 2, 2010.
- ARSPA-WITS 2010: Joint Workshop on Automated Reasoning for Security Protocol Analysis and Issues in the Theory of Security, Paphos, Cyprus, March 27–28, 2010.
- Esorics 2009: 14th European Symposium on Research in Computer Security, Saint Malo, France, September 21–25, 2009.
- STM 2009: 5th International Workshop on Security and Trust Management (in conjunction with Esorics'09), Saint Malo, France, September 24–25, 2009.
- 46. FIS 2009: Future Internet Symposium, Berlin, Germany, September 1–3, 2009.
- FCS 2009: Workshop on Foundations of Computer Security, affiliated with LICS'09, Los Angeles, California, USA, August 10, 2009.
- 44. **ADDCT 2009:** Automated Deduction: Decidability, Complexity, Tractability Workshop, affiliated with CADE-22, Montreal, Canada, August 2, 2009.
- SECRYPT 2009: International Conference on Security and Cryptography, Milano, Italy, July 7–10, 2009.
- SECURWARE 2009: The Third International Conference on Emerging Security Information, Systems and Technologies, Athens, Greece, June 18–23, 2009.
- ARES 2009: Fourth International Conference on Availability, Reliability and Security, Fukuoka, Japan, March 16–19, 2009.
- ALICS 2008: Workshop on Applications of Logic in Security, Doha, Qatar, November 22, 2008.
- 39. FIS 2008: Future Internet Symposium, Vienna, Austria, September 28–30, 2008.
- FMWS 2008: Workshop on Formal Methods for Wireless Systems, satellite workshop of CONCUR 2008, Toronto, Canada, August 19–22, 2008.
- IJCAR 2008: The 4th International Joint Conference on Automated Reasoning, Sydney, Australia, August 10–15, 2008.
- CEDAR 2008: Workshop on Complexity, Expressibility, and Decidability in Automated Reasoning, affiliated with IJCAR 2008, Sydney, Australia, August 10–11, 2008.

- 35. **PAAR 2008:** The first Workshop on Practical Aspects of Automated Reasoning, affliated with IJCAR 2008, Sydney, Australia, August 11, 2008.
- VERIFY 2008: The fifth International Verification Workshop, affiliated with IJCAR 2008, Sydney, Australia, August 10–11, 2008.
- ARES 2008: Third International Conference on Availability, Reliability and Security, Barcelona, Catalonia, March 4–7, 2008.
- APE 2008: First International Workshop on Advances in Policy Enforcement, colocated with the 3rd ARES 2008, Barcelona, Catalonia, March 4–7, 2008.
- FTP 2007: 6th International Workshop on First-Order Theorem Proving, Liverpool, UK, September 12-13, 2007.
- FroCoS 2007: 6th International Symposium on Frontiers of Combining Systems, Liverpool, UK, September 10-12, 2007.
- SecCo 2007: 5th International Workshop on Security Issues in Concurrency, affiliated to CONCUR 2007, Lisboa, Portugal, September 3, 2007.
- ADDCT 2007: Automated Deduction: Decidability, Complexity, Tractability workshop, in connection with CADE-21, Bremen, Germany, July 15, 2007.
- 27. VERIFY 2007: 4th International Verification Workshop, in connection with CADE-21, Bremen, Germany, July 15-16, 2007.
- SecReT 2007: Security and Rewriting Techniques workshop, as part of RDP 2007, Paris, France, June 29, 2007.
- WITS 2007: 7th International Workshop on Issues in the Theory of Security, co-located with ETAPS 2007, Braga, Portugal, March 24–25, 2007.
- 24. ARES 2007: Second International Conference on Availability, Reliability and Security, Vienna, Austria, April 10-13, 2007.
- SEA 2006: IASTED International Conference on Software Engineering and Applications (SEA) 2006, Phoenix, USA, November 13–15, 2006.
- CNIS 2006: IASTED International Conference on Communication, Network, and Information Security (CNIS), MIT Faculty Club, Cambridge, Mass., USA, October 9–11, 2006.
- 21. CPSec 2006: 2nd International Workshop on Applications of Constraint Satisfaction and Programming to Computer Security (in conjunction with 12th International Conference on Principles and Practice of Constraint Programming), Nantes, France, September 26, 2006.
- ICS 2006: Workshop on Information and Computer Security, Timisoara, Romania, September 29–30, 2006.
- STM 2006: 2nd International Workshop on Security and Trust Management (in conjunction with Esorics'06), Hamburg, Germany, September 20, 2006.
- SecCo 2006: 4th International Workshop on Security Issues in Concurrency, CONCUR 2006 Affiliated Workshop. Bonn, Germany, August 31, 2006.
- VERIFY 2006: 3rd International Verification Workshop (VERIFY'06), FLoC/IJCAR Workshop, Seattle, USA, August, 15–16 2006.
- SecReT 2006: 1st International Workshop on Security and Rewriting Techniques, Venice, Italy, July 15, 2006.
- SUTC 2006 Wireless Networks Track of the 1st IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing, Taichung, Taiwan, June 05–07, 2006.
- SE 2006: IASTED International Conference on Software Engineering (SE) 2006, Innsbrück, Austria, February 14–16, 2006.
- IICAI 2005 session: Special Session on Logical Consequence and its Combinations at 2nd Indian International Conference on Artificial Intelligence, Pune, India, December 20–22, 2005.

- SEA 2005: IASTED International Conference on Software Engineering and Applications (SEA) 2005, Phoenix, USA, November 14–16, 2005.
- 11. SSI 2005: 7th International Symposium on System and Information Security, Sao Jose dos Campos, Brazil, November 08–11, 2005.
- CPSec 2005: 1st International Workshop on Applications of Constraint Satisfaction and Programming to Computer Security (in conjunction with the 11th International Conference on Principles and Practice of Constraint Programming), Barcelona, Spain, October 1, 2005.
- STM 2005: 1st International Workshop on Security and Trust Management (in conjunction with Esorics'05), Milan, Italy, September 15, 2005.
- LCMAS 2005: 3rd International Workshop on Logic and Communication in Multi-Agent Systems, satellite workshop of IJCAI 2005, Edinburgh, U.K., July/August 2005.
- FTP 2005: International Workshop on First-order Theorem Proving Systems, Koblenz, Germany, September 14–17, 2005.
- SE 2005: IASTED International Conference on Software Engineering (SE) 2005, Innsbrück, Austria, February 15–17, 2005.
- QSIC 2004: International Conference on Quality Software 2004, Universität Braunschweig, Germany, September 8–10, 2004.
- LCMAS 2004: Workshop on Logic and Communication in Multi-Agent Systems, in the context of the summer school ESSLLI'04, Nancy, France, August 17–21, 2004.
- WOLFASI 2004: LICS'04 Workshop on Logical Foundations of an Adaptive Security Infrastructure, associated with the LICS'04 Foundations of Computer Security (FCS'04) Workshop, Turku, Finland, July 12–13, 2004.
- FTP 2003: International Workshop on First-order Theorem Proving Systems, Universidad Politécnica de Valencia, Spain, June 12–14, 2003.
- 1. FroCoS 2002: the Fourth International Workshop on the Frontiers of Combining Systems, Università di Genova, April 8-10, 2002.

### 5.3 Editorial Activity for Journals

#### Editor in Chief: Completed

 Specialty Chief Editor on the board of Frontiers in Computer Science – Computer Security, Frontiers, August 2019 – March 2022.

#### Member of the Board of Editors: Active

- 4. Frontiers in Computer Science Computer Security, Frontiers, Since March 2022.
- 3. Journal of Cybersecurity, Oxford University Press, since February 2019.
- 2. Acta Informatica, Springer, since January 2017.
- Journal of Logical and Algebraic Methods in Programming (JLAMP), Elsevier, since October 2013.

#### Member of the Board of Editors: Completed

- 3. Information Processing Letters (IPL), Elsevier, November 2009 July 2020.
- 2. Frontiers in Blockchain, Frontiers Media, June 2018 August 2019.
- 1. Frontiers in ICT, Frontiers Media, July 2014 August 2019.

# 5.4 Reviewing Activity for Journals, Conferences and Workshops

Besides for the reviewing activity carried out for the books and the journal issues that I edited, and for the conferences and workshops for which I served as PC chair or member, I have regularly been acting as reviewer for dozens of journals and conferences in computer science, in particular in the areas of logic, formal methods, automated deduction and verification, and IT-security.

# 5.5 Reviewing Activity for Research Projects

I have chaired

- The review of the Subject-Level Review for the Department of Computer Science, Reykjavik University, Iceland, as part of the Icelandic Quality Assessment Framework for Higher Education Institutions, 2022 (panel comprising of 2 members, both co-chairs).
- The review of the Department of Computer Science of the University of Exeter, UK, 2019 (panel comprising 3 members).
- The 4-year evaluation panel of INRIA's Research Theme "Security and Confidentiality", 2014-2018 (5 project teams, each comprising 10 to 30 people).

I have served as reviewer for research projects proposed under the following international or national research programs:

- Agence Nationale de la Recherche (ANR), France: 1 project proposal reviewed in 2011.
- Austrian Science Fund: 1 project proposal reviewed in 2016, 1 in 2010 and 1 in 2009.
- AXA Research Fund, France: 1 project proposal reviewed in 2015.
- Cyprus Research Promotion Found ation Programmes for Research, Technological Development And Innovation "restart 2016 2020": 1 project proposal reviewed in 2021, 1 in 2018 and 1 in 2017.
- DIM (Domaine d'Intérêt Majeur), Région Île-de-France: 1 project proposal reviewed in 2010.
- Engineering and Physical Sciences Research Council (EPSRC): 4 project proposals reviewed in 2019, 2 in 2020 and 1 in 2021.
- European Research Council: 1 project proposal reviewed in 2016, 1 in 2014 and 1 in 2010.
- French Graduate schools of research: 1 project proposal reviewed in 2017.
- Hasler Stiftung, Switzerland: 1 project proposal reviewed in 2015.
- Italian Progetti di Ricerca di Interesse Nazionale: 1 project proposal reviewed in 2018.

- Methusalem program, Flemish government: 1 project proposal reviewed in 2015.
- QTN (Quantum at Trento), a joint initiative of University of Trento (UniTN), Consiglio Nazionale delle Ricerche (CNR) and Bruno Kessler Foundation (FBK): 1 project proposal reviewed in 2020.
- Research Foundation Flanders (Fonds Wetenschappelijk Onderzoek Vlaanderen, FWO): 1 project proposal reviewed in 2016.
- Swiss National Science Foundation (SNSF): 1 project proposal reviewed in 2010.

# 5.6 Reviewing Activity for Academic Appointments and Promotions

Besides for the interview panels at my own institutions, I have served as evaluator/reviewer/panel member for about 20 international academic appointments and promotions at diverse international institutions (I can't name the reviewees for confidentiality reasons).

# 5.7 Reviewing Activity for Habilitation Theses and PhD Theses

I have acted as external reviewer and/or jury member of the following Habilitation and PhD Theses:

#### Habilitation à Diriger des Recherches: reviewer and jury member

 Mathieu Jaume, Descriptions formelles: Comprendre, Corriger, Implanter, Réutiliser (Application au contrôle d'accès), Université Pierre et Marie Curie, Paris, France, October 2008.

#### PhD Theses: reviewer and jury member

I have acted as reviewer and jury member of the PhD thesis of 22 students at several different universities in Europe.

#### PhD Theses: jury member

I have acted as jury member of the PhD thesis of 48 students at several different universities in Europe.

# 6 Teaching

#### 6.1 Detailed Teaching Experience

Courses: Master's (MSc) programs

- 29. Cryptography (7CCSMCIS): King's College London, first term of the academic year 2023/2024.
- 28. Cryptography (7CCSMCIS): King's College London, first term of the academic year 2022/2023.
- 27. Cryptography (7CCSMCIS): King's College London, first term of the academic year 2021/2022.
- 26. Cryptography (7CCSMCIS): King's College London, first term of the academic year 2020/2021.
- 25. Cryptography: Online MSc in Advanced Cybersecurity, King's College London, 2020.
- 24. Cryptography and Information Security (7CCSMCIS): King's College London, first term of the academic year 2019/2020.
- 23. Cryptography and Information Security (7CCSMCIS): King's College London, first term of the academic year 2018/2019.
- 22. Network Security (7CCSMSE): King's College London, second term of the academic year 2017/2018; with Asad Ali and Jose Such.
- 21. Cryptography and Information Security (7CCSMCIS): King's College London, first term of the academic year 2017/2018.
- 20. Network Security (7CCSMSE): King's College London, second term of the academic year 2016/2017; with Nishanth Sastry.
- 19. Cryptography and Information Security (7CCSMCIS): King's College London, first term of the academic year 2016/2017.
- 18. Network Security (7CCSMSE): King's College London, second term of the academic year 2015/2016; with Nishanth Sastry.
- 17. Cryptography and Information Security (7CCSMCIS): King's College London, first term of the academic year 2015/2016.
- 16. Advanced Security Topics (7CCSMAST): King's College London, second term of the academic year 2014/2015; with Nishanth Sastry.
- 15. Cryptography and Information Security (7CCSMCIS): King's College London, first term of the academic year 2014/2015.
- 14. Software Engineering of Internet Applications (7CCSMSIA): King's College London, second term of the academic year 2013/2014.
- 13. Network Security: University of Verona, second semester of the academic year 2012/2013.
- 12. Network Security: University of Verona, second semester of the academic year 2011/2012.
- 11. Network Security: University of Verona, second semester of the academic year 2010/2011.
- 10. Network Security: University of Verona, second semester of the academic year 2009/2010.
- Network and Systems Security: University of Verona, third quadrimester of the academic year 2008/2009.
- Network and Systems Security: University of Verona, third quadrimester of the academic year 2007/2008.
- 7. Formal Methods for Information Security: ETH Zurich, winter semester 2005/2006.

- 6. Formal Methods for Information Security: with Dr. Heiko Mantel, ETH Zurich, summer semester 2004.
- 5. **IT-Security, Theory and Practice:** with Prof. Dr. David Basin, Uwe Jendricke and Prof. Dr. Günter Müller, Albert-Ludwigs-Universität Freiburg, winter semester 2002/2003.
- 4. **IT-Security, Theory and Practice:** with Prof. Dr. David Basin, Uwe Jendricke and Prof. Dr. Günter Müller, Albert-Ludwigs-Universität Freiburg, winter semester 2001/2002.
- 3. IT-Security, Theory and Practice: with Prof. Dr. David Basin, Uwe Jendricke and Prof. Dr. Günter Müller, Albert-Ludwigs-Universität Freiburg, winter semester 2000/2001.
- 2. IT-Security, Theory and Practice: with Prof. Dr. David Basin, Uwe Jendricke and Prof. Dr. Günter Müller, Albert-Ludwigs-Universität Freiburg, winter semester 1999/2000.
- 1. Lambda-Calculus and Type Theory: assistant of Prof. Dr. David Basin and Prof. Dr. Harald Ganzinger, Universität des Saarlandes, summer semester 1995.

#### Courses: Bachelor programs (BSC & MSci)

- 30. Cryptography (6CCS3CIS): King's College London, first term of the academic year 2023/2024.
- 29. Cryptography (6CCS3CIS): King's College London, first term of the academic year 2022/2023.
- 28. Cryptography and Information Security (6CCS3CIS): King's College London, first term of the academic year 2021/2022.
- 27. Cryptography and Information Security (6CCS3CIS): King's College London, first term of the academic year 2020/2021.
- 26. Cryptography and Information Security (6CCS3CIS): King's College London, first term of the academic year 2019/2020.
- 25. Cryptography and Information Security (6CCS3CIS): King's College London, first term of the academic year 2018/2019.
- 24. Network Security (6CCS3NSE): King's College London, second term of the academic year 2017/2018; with Asad Ali and Jose Such.
- 23. Cryptography and Information Security (6CCS3CIS): King's College London, first term of the academic year 2017/2018.
- 22. Network Security (6CCS3NSE): King's College London, second term of the academic year 2016/2017; with Nishanth Sastry.
- 21. Cryptography and Information Security (6CCS3CIS): King's College London, first term of the academic year 2016/2017.
- 20. Network Security (6CCS3NSE): King's College London, second term of the academic year 2015/2016; with Nishanth Sastry.
- 19. Cryptography and Information Security (6CCS3CIS): King's College London, first term of the academic year 2015/2016.
- 18. Advanced Security Topics (6CCS3AST): King's College London, second term of the academic year 2014/2015; with Nishanth Sastry.
- 17. Cryptography and Information Security (6CCS3CIS): King's College London, first term of the academic year 2014/2015.
- 16. Software Engineering: University of Verona, second semester of the academic year 2012/2013.
- 15. Software Engineering: University of Verona, second semester of the academic year 2011/2012.
- 14. Software Engineering: University of Verona, second semester of the academic year 2010/2011.
- 13. Software Engineering: University of Verona, second semester of the academic year 2009/2010.
- 12. Logic for Computer Science: University of Verona, first semester of the academic year 2009/2010.

- 11. Software Architectures: University of Verona, first and second quadrimester of the academic year 2008/2009.
- 10. Software Architectures: University of Verona, first and second quadrimester of the academic year 2007/2008.
- Computer Networks: University of Verona, third quadrimester of the academic year 2006/20-07.
- 8. Software Architectures: University of Verona, first and second quadrimester of the academic year 2006/2007.
- 7. Information Security: with Prof. Dr. David Basin and Prof. Dr. Ueli Maurer, ETH Zurich, summer semester 2006.
- 6. Information Security: with Prof. Dr. David Basin and Prof. Dr. Ueli Maurer, ETH Zurich, summer semester 2005.
- 5. Information Security: with Prof. Dr. David Basin, ETH Zurich, winter semester 2003/2004.
- 4. Information Security: with Prof. Dr. David Basin, ETH Zurich, summer semester 2003.
- 3. Software Engineering: with Prof. Dr. David Basin and Dr. Burkhart Wolff, Albert-Ludwigs-Universität Freiburg, summer semester 2002.
- 2. Software Engineering: with Prof. Dr. David Basin and Dr. Burkhart Wolff, Albert-Ludwigs-Universität Freiburg, summer semester 2000.
- 1. Software Engineering: with Prof. Dr. David Basin and Dr. Burkhart Wolff, Albert-Ludwigs-Universität Freiburg, summer semester 1999.

#### Seminars (master's and bachelor level)

- 4. Security in Software Architectures: with Prof. Dr. David Basin and Dr. Burkhart Wolff, Albert-Ludwigs-Universität Freiburg, summer semester 2001.
- 3. Security in Communication Technology: seminar, with Prof. Dr. David Basin and Prof. Dr. Günter Müller, Albert-Ludwigs-Universität Freiburg, winter semester 1998/1999.
- 2. Formal Aspects of Computer Security: seminar, with Prof. Dr. David Basin and Stefan Friedrich, Albert-Ludwigs-Universität Freiburg, summer semester 1998.
- 1. Logical Frameworks and Logic Engineering: seminar, with Prof. Dr. David Basin and Dr. Seán Matthews, Universität des Saarlandes, winter semester 1995/1996.

#### Courses: University Master programs (post-graduate)

1. Fundamentals of Software Engineering: Master in Computer Game Programming, University of Verona, first semester of the academic year 2009/2010.

#### Courses: PhD programs

- Security at Work: Department of Computer Science, University of Pisa, Italy, May 27–31, 2013.
- 1. Deduction Systems for Non-Classical Logics: University of Verona, PhD Course, third quadrimester of the academic year 2007/2008.

#### PhD Summer School Courses

8. Fondamenti di Cyber-security e Privacy dei Sistemi Autonomi Affidabili: Department of Law, University of Verona, Italy, December 2022 – May 2023.

- 7. Formalizing the Human Dimension of Cybersecurity: University of Rome La Sapienza, Italy, September 14–15, 2022.
- 6. Formal Methods for Security Analysis: University of Bari, Italy, July 25–28, 2022.
- 5. Formalizing the Human Dimension of Cybersecurity: Reykjavik University, Iceland, June 20–24, 2022.
- Formal Methods for Security Analysis: University of New South Wales, Sydney, Australia, February 14–18, 2020.
- 3. Formalizing the Human Dimension of Cybersecurity: IMT Lucca, Italy, March 26, 2019.
- 2. Logica Computazionale: Summer School AILA Associazione Italiana di Logica e sue Applicazioni, Gargnano, Italy, August 29 September 4, 2010.
- On-the-fly Model Checking of Security Protocols and Web Services: 9th International School on Foundations of Security Analysis and Design, University Residential Center of Bertinoro, Italy, August 30 – September 4, 2009.

#### **Invited Courses and Lectures**

- 5. Privacy and Anonymity in the e-Society: block-course as part of the course Information Security, University of Genova, Italy, May 22, 2006.
- 4. Model Checking of Security Protocols: block-course as part of the course Language-Based Security, Informatics and Mathematical Modelling, Technical University of Denmark, Copenhagen, March 11, 2005.
- 3. Introduction to Security Logics: block-course as part of the course Artificial Intelligence, University of Genova, Italy, March 01 and 06, 2002.
- Labelled Non-Classical Logics: advanced block-course, Instituto Superior Técnico, Lisbon, Portugal, from September 27 to October 01, 1999.
- 1. Introduction to Security Logics: block-course as part of the course Artificial Intelligence, University of Genova, Italy, March 29–30, 1999.

#### Tutorials at conferences and schools

- 5. Model checking and formal methods for the analysis of security protocols and web services: Tutorial, 21ST Workshop On Logic, Language, Information and Computation (WOLLIC 2014), Valparaiso, Chile, September 1–4, 2014.
- 4. Automated Validation of Trust and Security of Service-oriented Architectures: Tutorial, WOSS'10, Timisoara, Romania, September 25, 2010.
- 3. AVASP'05: ETAPS'05 Tutorial on Automated Validation of Security Protocols, Edinburgh, Scotland, April 3, 2005. Together with Sebastian Mödersheim and Dr. David van Oheimb.
- 2. Labelled Deductive Systems: Tutorial at the First World Congress and School on Universal Logic, Montreaux, Switzerland, from March 26 to April 3, 2005.
- 1. AVASP'04: IJCAR'04 tutorial on Automated Validation of Security Protocols, Cork, Ireland, July 5, 2004. Together with Dr. Jorge Cuellar and Sebastian Mödersheim.

#### **Industry Courses**

- 5. Fundamentals of Software Engineering: industry course, Navionics, Pisa, Italy, November 12-13, 2010.
- 4. Formal Methods for Information Security: industry course, Selex Sistemi Integrati, Genova, Italy, January 19, 2007.

- 3. Information Security Fundamental Concepts and Solutions: industry course, ETH Zurich, October 2 and 3, 2006. Together with Prof. Dr. David Basin.
- 2. Information Security Fundamentals: industry course, ETH Zurich, February 8 and 9, 2005. Together with Prof. Dr. David Basin.
- 1. Information Security Fundamentals: industry course, ETH Zurich, March 22 and 23, 2004. Together with Prof. Dr. David Basin.

# 6.2 Supervision of Students

#### **Postdocs: Current**

- 2. Megha Quamara. Topic: Security and Privacy of Extended Reality Systems. Since June 2023.
- 1. Sachini Weerawardhana. Topic: Trusted Autonomous Systems. Since August 2021.

#### **Postdocs:** Former

- Michele Peroli. Topic: Formal security testing of web applications. University of Verona. April 2015 – December 2016.
- 4. Marco Volpe. Topic: Attack patterns, trees and graph for the automated formal testing of applications in the Internet of Services. University of Verona. April 01, 2012 September 30, 2015.
- Michele Barletta. Topic: Penetration testing and industrial applications. Università di Verona. May 01, 2012 – June 30, 2013.
- Marco Volpe. Topic: Deduction systems for temporal logics and their application to problems in information security. Università di Verona. May 01, 2010 – February 28, 2011.
- Silvio Ranise. Topic: Formal methods for the validation of security services. Università di Verona. May 01, 2008 – May 31, 2010.

## PhD students: Current

- 5. Ioana Sandu. Topic: Formal Security Analysis of Trustworthy Autonomous Systems. King's College London. Since October 2022.
- 4. Amir Kiani. Topic: Explainable Security. King's College London. Since October 2021.
- Andrew Cook. Topic: Security of Protocols for Movement. King's College London. Since October 2018.
- Rawan Alrahili. Topic: Security of temporal networks and business processes. King's College London. Since January 2017.
- Parvin Sadigova. Topic: SAT-based reasoning. King's College London. Since October 2015.

#### PhD students: Former

- 11. Diego Sempreboni. A formal approach for the analysis of the security of socio-technical systems. King's College London. September 2020.
- 10. Federico De Meo. A Formal and Automated Approach to Exploiting Multi-Stage Attacks of Web Applications, Università di Verona. May 2018.
- 9. Matteo Zavatteri. Temporal and Resource Controllability of Workflows Under Uncertainty, Università di Verona. May 2018.

- 8. Michele Peroli. A Model-Based Security Testing Approach for Web Applications. Università di Verona. April 2015.
- Alberto Calvi. Methods for Model-Based and Vulnerability-driven Security Testing. Università di Verona. April 2015.
- 6. Marco Rocchetto. Methods and tools for design time and runtime formal analysis of security protocols and web applications. Università di Verona. April 2015.
- 5. Erisa Karafili. Deduction and algorithmic approaches to reason about risk, privacy and security in multi-agent systems, Università di Verona, April 2014.
- 4. Michele Barletta. Authorization Policies in Security-Sensitive Web Services and Applications: Formal Modeling and Analysis, Università di Verona, April 2012.
- Marco Volpe, Labeled Natural Deduction for Temporal Logics, Università di Verona, May 2010.
- 2. Paul Hankes Drielsma, Building Formal Models of Next Generation Security Protocols, ETH Zurich, 2007. Joint supervision with Prof. Dr. David Basin.
- 1. Sebastian Mödersheim, Models and Methods for the Automated Analysis of Security Protocols, ETH Zurich, 2007. Joint supervision with Prof. Dr. David Basin.

#### Research associates (pre-PhD, "assegnisti di ricerca")

In addition to the Postdoc-positions of Michele Barletta, Silvio Ranise and Marco Volpe, and the PhD-positions of Michele Barletta, Davide Guardini and Marco Rocchetto, which have been funded by research associate contracts financed by the projects I have been coordinating, I have supervised the following pre-PhD research associate positions:

- Federico De Meo. Topic: Attack patterns, trees and graph for the automated formal testing of applications in the Internet of Services. University of Verona. April 1, 2013 – December 31, 2013.
- Davide Guardini. Topic: Attack patterns, trees and graph for the automated formal testing of applications in the Internet of Services. University of Verona. April 1, 2012 – December 31, 2012.
- 3. Alberto Calvi. Topic: Languages and methods for the formal analysis of security policies in protocols and web services. Università di Verona. June 01, 2009 – December 31, 2010.
- Luca Murarolli, Topic: Development, implementation and application of an automated platform for the analysis of service-oriented architectures. Università di Verona. May 01 – December 31, 2010.
- Marco Rocchetto, Topic: Development, implementation and application of an automated platform for the analysis of service-oriented architectures. Università di Verona. May 01 – December 31, 2010.

#### **MSc** students

• Supervisor of more than 40 MSc theses at King's College London.

# MSc students and students of the 5 year specialized degree in computer science (laurea specialistica/magistrale)

- Supervisor of more than 30 theses completed at the Università di Verona.
- Co-supervisor of 7 theses completed at the Università di Verona.
- Examiner of more than 20 theses di Laurea Specialistica/Magistrale completed at the Università di Verona.

#### **BSc/MSCi** students

• Supervisor of more than 40 theses at King's College London.

# Bachelor students (3 year degree) in computer science (laurea triennale)

• Supervisor of more than 100 theses completed at the Università di Verona.

# 7 Research

# 7.1 Research Projects and Grants

Scientific Coordinator (ex Principal Investigator) of Horizon Europe projects:

# 1. SERMAS: Socially-acceptable Extended Reality Models And Systems (10/2022– 09/2025)

Project consortium:

- (a) King's College London, UK.
- (b) Technical University of Darmstadt, Germany.
- (c) Università di Modena e Reggio Emilia, Italy.
- (d) Deutsche Welle, Germany.
- (e) F6S, Ireland.
- (f) Poste Italiane, Italy.
- (g) Spindox Labs, Italy.
- (h) Scuola Universitaria Professionale della Svizzera Italiana, Switzerland.

Further information is available at https://sermasproject.eu.

I was actually the Principal Investigator, who wrote the vast majority of the proposal and was awarded the grant, but unfortunately the UK failed to secure association to Horizon Europe, so I had to hand over as PI to a colleague in Italy. I maintain a leadership role as Scientific Coordinator of the project.

Budget: €5,725,593 (initial award to self: €1,815,763, final award value to self: €642,614).

#### Principal Investigator of projects at King's College London:

2. Cryptoculture 3.0: The creative partnership of Cybersecurity, Psychology and the Arts (10/2019-03/2020)

A multi-disciplinary exploratory project that aims at laying the foundations of a Third Culture of Cybersecurity by exploring how the arts (popular films, novels and other artworks) can be employed, through the mediation of psychology, to explain cybersecurity, teach cybersecurity and, ultimately, inspire innovative research in cybersecurity. Funding: £19,973.

1. A Formal Tool For The Analysis Of the Socio-technical Security Of Cybersystems (10/2016-09/2019)

The project aims to lay the foundations of the formal and systematic analysis of sociotechnical security, a discipline that is still in its infancy, with little recognized methodologies or comprehensive toolsets. The project has been pushing current formal models to capture human behavioural and cognitive aspects in their relation with "machine" security.

Funding: £82,800 (£45,000 contributed by King's College London through the Professor Sir Richard Trainor PhD Scholarships and £37,800 contributed by the company Go-Ahead).

Principal Investigator of FP7 projects: Principal Investigator (scientific and administrative coordinator) of

2. SPaCIoS: Secure Provision and Consumption in the Internet of Services (10/2010– 01/2014) 7th Framework Programme Theme ICT-2009.1.4 (Trustworthy ICT), Strep project no. 257876, aiming at laying the technological foundations for a new generation of analyzers for automated security validation at service provision and consumption time. Project consortium:

- (a) Università degli Studi di Verona, Italy.
- (b) ETH Zurich, Switzerland.
- (c) Institut Polytechnique de Grenoble, France.
- (d) Karlsruher Institut fuer Technologie, Germany.
- (e) Università degli Studi di Genova, Italy.
- (f) SAP AG, Sophia Antipolis, France.
- (g) Siemens AG, Munich, Germany.
- (h) Institute e-Austria Timișoara (IEAT), Timisoara, Romania.

Further information is available at www.spacios.eu.

Budget: €5,677,084.00. EC Contribution: €3,610,000.00.

1. AVANTSSAR: Automated VAlidatioN of Trust and Security of Service-Oriented ARchitectures (01/2008–12/2010)

7th Framework Programme Theme ICT-1-1.4 (Secure, dependable and trusted Infrastructures), Strep project no. 216471, aiming at developing a rigorous technology for the formal specification and automated validation of trust and security of service-oriented architectures.

Project consortium:

- (a) Università degli Studi di Verona, Italy.
- (b) ETH Zurich, Switzerland.
- (c) Institut National de Recherche en Informatique (INRIA) Nancy, France.
- (d) Institut de Recherche en Informatique de Toulouse (IRIT), France.
- (e) Università degli Studi di Genova, Italy.
- (f) IBM Zurich Research Laboratory, Switzerland.
- (g) OpenTrust, Paris, France.
- (h) Institute e-Austria Timișoara (IEAT), Timisoara, Romania.
- (i) SAP AG, Sophia Antipolis, France.
- (j) Siemens AG, Munich, Germany.

Further information is available at www.avantssar.eu.

Budget: €6,070,954.80. EC Contribution: €3,800,000.00.

# **Principal Investigator of Italian MIUR projects:** Principal Investigator (coordinator) of the Verona unit of the Italian MIUR projects:

### 2. Security Horizons, PRIN'11 (2013-2016)

- (a) Università degli Studi di Pisa (project coordinator: Prof. Pierpaolo Degano), Italy,
- (b) Università degli Studi di Cagliari, Italy.
- (c) Università degli Studi di Genova, Italy.
- (d) Università degli Studi di Napoli "Federico II", Italy.
- (e) Università degli Studi di Milano, Italy.
- (f) Università Ca' Foscari di Venezia, Italy,
- (g) Università degli Studi di Verona, Italy.

(h) Consiglio Nazionale delle Ricerche, Italy.

Funding of the Verona unit:  $\in 87,000$ .

- 1. SOFT: Software Oriented Formal Techniques, PRIN'07 (22/09/2008-21/09/2010)
  - (a) Università Ca' Foscari di Venezia (project coordinator: Prof. Riccardo Focardi), Italy,
  - (b) Università degli Studi di Pisa, Italy,
  - (c) Università degli Studi di Verona, Italy.

Funding: €56,400.

#### Co-Investigator of projects with UK-based funding:

- 4. Enhancing Deception Analysis with Storytelling AI (11/2022–10/2024). Funded by the Royal Academy of Engineering. PI: Stefan Sarkadi, Co-I: Luca Viganò. Funding: £200,000.
- 3. A Pilot: Risk Management-based Framework for Developing Intelligent Systems for Natural Disasters (07/2020–12/2021). Funded by the PLUS Alliance (Arizona State University, King's College London, University of New South Wales). PI: Elena Sitnikova, Co-Is: Luca Viganò and others.

Funding:  $\pounds 60,000$  ( $\pounds 19,000$  to self).

2. UKRI Trustworthy Autonomous Systems Hub (09/2020-08/2024).

The UKRI TAS Hub (https://www.tas.ac.uk) is establishing a collaborative platform for the UK to deliver world-leading best practices for the design, regulation and operation of socially beneficial autonomous systems which are both trustworthy in principle, and trusted in practice by individuals, society and government. The Hub assembles a team from the Universities of Southampton, Nottingham and King's College London, and Luca Viganò is one of the co-Is of the Hub.

Funding: several million pounds overall, £2,167,329.60 to King's College London.

1. DADD: Discovering and Attesting Digital Discrimination (08/2018-07/2021). DADD (https://dadd-project.github.io) is a cross-disciplinary collaboration following a continuously-running co-creation process with academic (Computer Science, Digital Humanities, Law and Ethics) and non-academic partners (Google, AI Club), and the general public, including technical and non-technical users. DADD will design ground-breaking methods to certify whether or not datasets and algorithms discriminate by automatically verifying computational non-discrimination norms, which will in turn be formalised based on socio-economic, cultural, legal, and ethical dimensions, creating the new transdisciplinary field of digital discrimination certification. PI: Jose Such, Co-Is: Luca Viganò and others.

Funding: £653,776.

# Project co-proposer and participant: FP projects

3. GeTFUN: Generalizing Truth-Functionality (01/2013–12/2016)

EU-FP7 Marie Curie project PIRSES-GA-2012-318986 aiming at studying and relating various well-motivated ways in which the attractive properties and meta-properties of truth-functionality may be generalized to cover more extensive logical grounds. Local coordinator for the Università degli Studi di Verona, Italy, from January 2013 to December 2013, and local coordinator for King's College London, UK, from January 2014. Project co-proposer and actively involved in the research activity. Funding: €222,000.

2. AVISPA: Automated Validation of Internet Security Protocols and Applications (01/2003-06/2005)

Information Society Technologies (IST) Programme, FET Open Project IST-2001-39252, aiming at developing validation tools for Internet security protocols and applications. In cooperation with DIST (Università di Genova, Italy), LORIA-INRIA-Lorraine (Nancy, France), and Siemens AG (München, Germany). Project co-proposer and actively involved in the research activity.

The AVISPA Project was shortlisted for the EU Descartes Prize for Research 2006. Funding:  $\in 2,047,585$ .

 AVISS: Automated Verification of Infinite State Systems (05/2001-04/2002) Information Society Technologies (IST) Programme, FET Open Assessment Project IST-2000-26410, aiming at laying the foundations of a new generation of verification tools for automatic error detection for e-commerce and related security protocols. In cooperation with DIST (Università di Genova, Italy) and LORIA-INRIA-Lorraine (Nancy, France). German co-proposer and project coordinator, with Prof. Dr. David Basin, and actively involved in the research activity. Funding: €100.000

Funding:  $\in 100,000$ .

#### Project co-proposer and participant: German projects

#### 3. SAWAGE: Security Aware Agents (10/2002–09/2004)

Research project sponsored by the DFG (the German Research Council) aiming at developing a multi-modal logic for the specification and analysis of security protocols and properties. Project co-proposer, with Prof. Dr. David Basin, and actively involved in the research activity.

Funding: 1 research scientist position for the project duration (approximately  $\in 80,000$ ).

2. FSA: Formal Security Architectures (10/2000-10/2002)

Research project sponsored by the DFG (the German Research Council) and associated with the "Schwerpunktprogramm Sicherheit SPPS", aiming at developing formal methods for the specification of software architectures and the analysis of their security requirements and properties. Project co-proposer, with Prof. Dr. David Basin and Dr. Burkhart Wolff, and actively involved in the research activity.

Funding: 2 research scientist positions for the project duration (approximately  $\in 160,000$ ).

1. Combining Automated Reasoners

Research project sponsored by the DAAD (German Academic Exchange Service) with DIST (Università di Genova, Italy), as part of the Vigoni-Programme 1999–2001. Project co-proposer and coordinator with Prof. Alessandro Armando. Funding: €10,000.

#### Project proposer and participant: Industry projects

1. A Semi-Automated Security Testing Tool Based on Attacker Models (09/2012-08/2014)

Research project sponsored by Siemens AG (Munich Research Labs) aiming at developing a prototype tool that integrates several attacker models (one for each considered vulnerability) in order to perform a semi-automated (user driven) search of security vulnerabilities of a web application.

Funding: 1 senior research scientist position for the project duration ( $\notin$ 90,000).

## 7.2 Tools and Software

Besides for minor software and tools, in the course of the projects AVANTSSAR, AVISPA and AVISS, I have supervised and participated at the development of the OFMC Tool (Open-Source Fixed-point Model-Checker, formerly knows as On-the-Fly Model Checker for security protocol analysis), which is part of the AVISPA Tool for the automated validation of Internet security protocols and applications and of the AVANTSSAR Platform for the automated validation of trust and security aspects of web services and service-oriented architectures). OFMC, AVISPA, and AVANTSSAR are state-of-the-art tools and are freely available. Moreover, the AVANTSSAR Platform has been providing the basis for the SPaCIoS Tool, developed, and freely available, in the context of the SPaCIoS project. I have also contributed to the development of the following other tools:

- Esse, a tool for Conditional Simple Temporal Network with Uncertainty, and Zeta, a tool for Constraint Networks Under Conditional Uncertainty.
- The Model-based Security Testing Framework for Web Applications MobSTer.
- The Security Protocol interpolation Method SPiM.
- The Web Application Formal Exploiter WAFEx.
- X-Men, an extension of Tamarin for the formal and automated analysis of security ceremonies and socio-technical systems.

# 7.3 Keynotes, Invited Talks and Lectures

Besides for the invited courses and tutorials listed under the teaching activity, and besides for the presentations of papers at conferences, I have been invited to give more than 50 talks and lectures, at various conferences, meetings, and seminars, on the specification and verification of security protocols and architectures, as well as on labelled deduction systems for non-classical logics. I do not list the panels I have been invited to speak at, including four panels at the Italian Cultural Institute in London about cybersecurity, AI and tennis.

My most recent keynotes, invited talks and lectures are:

- 54. *E vissero per sempre cybersicuri e contenti*, talk at the "Festival della Scienza", Genova, Italy, October 29, 2023.
- 53. Cybersecurely ever after The cybersecurity of fairy tales (and more), online lecture at the MSc in Cybersecurity, Politecnico di Torino, Italy, October 25, 2023.
- 52. Cybersecurily ever after, talk at "New Scientist Live (The world's greatest festival of ideas and discoveries)", London, UK, October 8, 2023.
- 51. And they lived cybersecurely ever after, online lecture at University College London, UK, August 1, 2023.
- E vissero per sempre cybersicuri e contenti, talk at the "Festival Andersen", Sestri Levante, Italy, May 24, 2023.
- Cybersecurity, Nicolas Cage, Peppa Pig and Cinderella, invited keynote at CSE4IA'23, the 1st International Workshop on Cyber Security Education for Industry and Academia, co-located with IS-EUD 2023, Cagliari, Italy, June 06, 2023.
- Fairy Tales of AI and Cybersecurity, invited talk at the "AI Festival" organised by King's College London, May 24, 2023.

- Cybersecurity, Nicolas Cage and Peppa Pig, invited keynote at ICISSP 2023, the 9th International Conference on Information Systems Security and Privacy, Lisbon, Portugal, February 22-24, 2023.
- Formal Methods for Socio-Technical Security (Formal and Automated Analysis of Security Ceremonies), invited keynote at SecITC 2022, the 15th International Conference on Information Technology and Communications, online, December 8–9, 2022.
- Don't Tell Me The Cybersecurity Moon Is Shining... (Cybersecurity Show and Tell), invited keynote at SECRYPT 2022, the 19th International Conference on Security and Cryptography, Lisbon, Portugal, July 11-13, 2022.
- 44. Formal Methods for Socio-Technical Security (Formal and Automated Analysis of Security Ceremonies), invited keynote at COORDINATION 2022, the 24th International Conference on Coordination Models and Languages, as part of DisCoTec 2022, the 17th International Federated Conference on Distributed Computing Techniques, Lucca, Italy, June 13–17, 2022.
- 43. Cybersecurity, Nicolas Cage and Peppa Pig, invited online lecture at "Collegio Clesio", promoted by the University of Trento, Italy, to offer to the most talented and motivated students the opportunity to access advanced training, February 17, 2022.
- 42. Cybersecurity, Nicolas Cage and Peppa Pig, online talk at the "Festival of Disruptive Thinking" organised by King's College London, November 4, 2021.
- 41. Don't Tell Me the Cybersecurity Moon is Shining... (Cybersecurity Show and Tell), keynote talk at "INTERACT 2021, the 18th International Conference promoted by the IFIP Technical Committee 13 on Human-Computer Interaction", Bari, Italy, August 30 September 3, 2021.
- 40. Security is Mortals' Chiefest Enemy, keynote talk at "ITASEC 2020 The 4th Italian Conference on CyberSecurity", Università Politecnica delle Marche, Italy, February 4–7, 2020.
- Cyberspace Explainable Security, annual Lecture of the King's College London Engineers' Association (KCLEA), King's College London, February 27, 2019.
- Explaining Cybersecurity with Movies and the Arts, invited talk at "WSF18 The 2018 Workshop on Security Frameworks (Informatics IS Cybersecurity)", University of Catania, Italy, December 12, 2018.
- 37. Explainable Security, distinguished lecture at TechSocial, UCL, UK, November 21, 2018.
- 36. A Labeled Logic for Analyzing Cyber-Forensics Evidence, distinguished lecture at Hebrew University, Jerusalem, Israel, November 11, 2018.
- 35. Framing the Hacker (Explaining Cybersecurity with Movies and the Arts), distinguished lecture at the Comparative Literature Research Seminar, King's College London, UK, October 3, 2018.
- 34. A Formal Approach to Cyber-Physical Attacks, invited talk at "FCS 2018 Workshop on Foundations of Computer Security 2018", affiliates with FLoC, Oxford, UK, July 8, 2018.
- 33.  $\alpha$ - $\beta$  privacy, distinguished lecture at the Knowledge Media Institute, The Open University, UK, June 15, 2018.
- 32.  $\alpha$ - $\beta$  privacy, distinguished lecture at the University of Genova, Italy, May 18, 2018.
- A Formal Approach to Cyber-Physical Attacks, distinguished lecture, Information Security Group, UCL, UK, May 3, 2018.
- 30.  $\alpha$ - $\beta$  privacy, distinguished lecture at the CANES Doctoral School retreat, Cumberland Lodge, UK, February 17, 2018.
- 29.  $\alpha$ - $\beta$  privacy, distinguished lecture, Theory group's (PPLV) research seminar at UCL, UK, July 04, 2017.
- 28.  $\alpha$ - $\beta$  privacy, distinguished lecture at the University of Luxembourg, February 28, 2017.
- 27.  $\alpha$ - $\beta$  privacy, distinguished lecture at the University of Eindhoven, The Netherlands, October 18, 2016.

- 26. Is security really mortals' chiefest enemy?, distinguished lecture at Microsoft Singapore, July 29, 2016.
- 25.  $\alpha$ - $\beta$  privacy, distinguished lecture at the Singapore University of Technology and Design, July 28, 2016.
- α-β privacy, invited talk at the 30th Annual IFIP WG 11.3 Conference on Data and Applications Security and Privacy (DBSec 2016), Trento, Italy, July 18-20, 2016.
- α-β privacy, invited talk at "GeTFun 4.0 2016: Compositional Meaning in Logic", satellite workshop of IJCAR 2016, Coimbra, Portugal, July 1-2, 2016.
- Formal Methods for Security Protocol Analysis, distinguished lecture at University of Sao Paulo, Brazil, May 12, 2016.
- 21.  $\alpha$ - $\beta$  privacy, distinguished lecture at FBK Trento, Italy, April 29, 2016.
- 20. Security is Beautiful, invited talk at the Conference in honour of Amílcar Sernadas, IST Lisbon, Portugal, April 23, 2016.
- 19.  $\alpha$ - $\beta$  privacy, invited talk at "Algebra and Coalgebra meet Proof Theory", ALCOP VII, Vienna, Austria, April 7–9, 2016.
- Modal and Temporal Deduction Systems for Quantum State Transformations, invited talk at the 21ST Workshop On Logic, Language, Information and Computation (WOLLIC 2014), Valparaiso, Chile, September 1–4, 2014.
- Defining privacy is supposed to be easy, invited talk at the joint UK-Germany Automated Reasoning Workshop (ARW-DT), a satellite IJCAR workshop as part of Vienna Summer of Logic, July 23–24, 2014.
- 16. Formal Methods for the Security of the Internet of Services, invited talk at the 6th Workshop on Intuitionistic Modal Logic and Applications (IMLA), Rio de Janeiro, Brazil, April 7, 2013.
- 15. Towards a Logical Framework for Reasoning about Risk, invited talk (and invited paper [C42]) at SeCIHD'12, the 2nd IFIP International Workshop on Security and Cognitive Informatics for Homeland Defense, in conjunction with ARES 2012, University of Economics in Prague, Czech Republic, August 20-24, 2012.
- Automated Validation of Trust and Security of Service-Oriented Architectures with the AVAN-TSSAR Platform, invited talk (and invited paper [C41]) at HPCS 2012, the 2012 International Conference on High Performance Computing & Simulation, Madrid, Spain, July 2–6, 2012.
- On collaboration and non-collaboration in network security two case studies, invited talk at the First International Workshop on Socio-Technical Aspects in Security and Trust (STAST 2011), affiliated with the 5th International Conference on Network and System Security (NSS 2011), Milano, Italy, September 8, 2011.
- 12. Automated Validation of Trust and Security of Service-oriented Architectures and Secure Provision and Consumption in the Internet of Services, invited talk at the First International Workshop on Securing Services on the Cloud (IWSSC 2011), affiliated with the 5th International Conference on Network and System Security (NSS 2011), Milano, Italy, September 7, 2011.
- 11. Automated Validation of Trust and Security of Service-oriented Architectures and Secure Provision and Consumption in the Internet of Services, Distinguished Lecture at the University of Luxembourg, June 16, 2011.
- Automated Validation of Trust and Security of Service-oriented Architectures and Secure Provision and Consumption in the Internet of Services, invited presentation at the European Commission, Unit F.5: Trust & Security, DG Information Society & Media, Brussels, February 16, 2011.
- 9. Automated Validation of Internet Security Protocols, invited talk at WoSS 2010, the 1st Workshop on Software Services, Timisoara, Romania, September 25, 2010.

- Security Policy Specification and Validation with the AVANTSSAR Platform, invited talk at POFI 2010, the International Workshop on Policies for the Future Internet, Pisa, Italia, March 5, 2010.
- Automated Validation of Trust and Security of Service-oriented Architectures, invited lecture at the ZISC Information Security Colloquium Autumn Semester 2009, ETH Zurich, Switzerland, November 17, 2009.
- Automated Validation of Internet Security Protocols, invited talk at the 2nd Information Security Workshop, TheNIS Thematic Network in Information Security, IST Lisbon, Portugal, July 17, 2007.
- 5. Automated Protocol Analysis in the Presence of an Algebraic Intruder, invited talk at the 4th International Conference on Information and the 4th Irish Conference on the Mathematical Foundations of Computer Science and Information Technology'06 (Information-MFCSIT'06), Special Session on Formal Approaches to Security, Cork, Ireland, August 1–5, 2006.
- A Framework for Algebraic Intruder Deductions, invited talk at the 22nd Conference on the Mathematical Foundations of Programming Semantics (MFPS'06), Special Session on Security, University of Genova, Italy, May 24–27, 2006.
- Automated Validation of Internet Security Protocols: Present and Future, invited talk at the Artist2 Workshop on Specification and Verification of Secure Embedded Systems, Pisa, Italy, May 18, 2006.
- 2. Automated Validation of Internet Security Protocols: Present and Future, keynote talk at the 6th International Workshop on Issues in the Theory of Security (WITS'06), co-located with ETAPS 2006, Vienna, Austria, March 25, 2006.
- Automated Validation of Internet Security Protocols and Applications, at the 21st Conference on the Mathematical Foundations of Programming Semantics (MFPS'05), Special Session on Security, University of Birmingham, U.K., May 18–21, 2005.

I have given the other invited talks at various international research centers, including:

- Department of Informatics and Mathematical Modelling, Technical University of Denmark, Lyngby, Denmark.
- INRIA Lorraine, Nancy, France.
- Laboratoire Spécification et Vérification LSV, ENS Cachan, France.
- Albert-Ludwigs-Universität Freiburg, Germany.
- Department für Informatik, Technische Universität Dortmund, Germany.
- IBFI Schloss Dagstuhl, Germany.
- Institut für Computerlinguistik, Universität des Saarlandes, Saarbrücken, Germany.
- Mathematisches Institut, Ludwigs-Maximilian-Universität München, Germany.
- Max-Planck-Institut für Informatik, Universität des Saarlandes, Saarbrücken, Germany.
- Dipartimento di Informatica, Sistemistica e Telematica, Università di Genova, Italy.
- Dipartimento di Elettronica e Informazione, Politecnico di Milano, Italy.
- Dipartimento di Informatica, Università di Pisa, Italy.
- Dipartimento di Informatica, Università di Venezia, Italy.
- Dipartimento di Informatica, Università di Verona, Italy.
- Dipartimento di Matematica, Università di Bologna, Italy.
- Dipartimento di Scienze Ambientali, Informatica e Statistica, Università di Venezia, Italy.
- DISI, Università di Genova, Italy.

- DIST, Università di Genova, Italy.
- Istituto per la Ricerca Scientifica e Tecnologica, Trento, Italy.
- Dipartimento di Informatica e Automazione, Università di Roma Tre, Italy.
- Department of Computer Science, University of Luxembourg.
- Departamento de Matemática, Instituto Superior Técnico, Lisbona, Portugal.
- Credit Suisse, Zürich, Switzerland.
- Institut für Informatik und angewandte Mathematik, Universität Bern, Switzerland.
- Department of Computer Science, ETH Zurich, Switzerland.
- Imperial College, London, U.K.
- Queen Mary University of London, London, U.K.
- Reykjavik University, Iceland.
- University College London, London, U.K.
- University of Birmingham, U.K.
- University of Cambridge, U.K.
- University of Manchester, U.K.
- Department of Computer Science, Indiana University, Bloomington, Indiana, U.S.A.

# 7.4 Publications

### Books

[B1] Luca Viganò. Labelled Non-Classical Logics. Kluwer Academic Publishers, Dordrecht, The Netherlands, 2000.

# **Journal Papers**

- [J40] Giampaolo Bella, Jacques Ophoff, Karen Renaud, Diego Sempreboni, Luca Viganò, Perceptions of beauty in security ceremonies. *Philosophy & Technology* 35, 72, 2022.
- [J39] Diego Sempreboni, Luca Viganò. A Mutation-Based Approach for the Formal and Automated Analysis of Security Ceremonies. *Journal of Computer Security* 31 (4):293–364, 2023.
- [J38] Jaime Ramos, Joao Rasga, Cristina Sernadas, Luca Viganò. Event-Based Time-Stamped Claim Logic. Journal of Logical and Algebraic Methods in Programming 121, 100684, 2021.
- [J37] Matteo Zavatteri, Carlo Combi, Luca Viganò. Resource Controllability of Business Processes Under Conditional Uncertainty. *Journal of Data Semantics*, 10(1):19–39, 2021.
- [J36] Matteo Zavatteri, Carlo Combi, Romeo Rizzi, Luca Viganò. Consistency checking of STNs with decisions: Managing temporal and access-control constraints in a seamless way. *Information and Computation*, 280:104637, 2021,
- [J35] Joao Rasga, Cristina Sernadas Erisa Karafili, Luca Viganò. Time-Stamped Claim Logic. Logic Journal of the IGPL, 29(3):303–332, 2021.
- [J34] Giada Sciarretta, Roberto Carbone, Silvio Ranise, Luca Viganò. Formal Analysis of Mobile Multi-Factor Authentication with Single Sign-On Login. ACM Transactions on Privacy and Security (TOPS), 23(3): 13:1–13:37, 2020.
- [J33] Federico De Meo, Luca Viganò. A Formal and Automated Approach to Exploiting Multi-Stage Attacks of Web Applications. *Journal of Computer Security*, 28(5):525-576, 2020.
- [J32] Ruggero Lanotte, Massimo Merro, Andrei Munteanu, Luca Viganò. A Formal Approach to Physics-Based Attacks in Cyber-Physical Systems. ACM Transactions on Privacy and Security (TOPS) 23(1):1–41, 2020.
- [J31] Matteo Zavatteri, Luca Viganò. Last man standing: Static, decremental and dynamic resiliency via controller synthesis. *Journal of Computer Security* 27(3):343–373, 2019.
- [J30] Matteo Cristani, Francesco Olivieri, Claudio Tomazzoli, Luca Viganò, Margherita Zorzi. Diagnostics as a Reasoning Process: From Logic Structure to Software Design. CIT 27(1):43– 57, 2019.
- [J29] Carlo Combi, Roberto Posenato, Luca Viganò, Matteo Zavatteri. Conditional Simple Temporal Networks with Uncertainty and Resources. Journal of Artificial Intelligence Research (JAIR) 64:931–985, 2019.
- [J28] Sebastian Mödersheim, Luca Viganò. Alpha-Beta Privacy. ACM Transactions on Privacy and Security (TOPS) 22(1):1–35, 2019.
- [J27] Silvio Ranise, Anh Tuan Truong, Luca Viganò. Automated and efficient analysis of administrative temporal RBAC policies with role hierarchies. *Journal of Computer Security* 26(4):423–458, 2018.
- [J26] Carlos Caleiro, Luca Viganò. Compositional Meaning in Logic. Logica Universalis 11(3):283-295, 2017.
- [J25] Marco Rocchetto, Luca Viganò, Marco Volpe. An interpolation-based method for the verification of security protocols. *Journal of Computer Security* 25(6):463-510, 2017.

- [J24] Luca Viganò, Marco Volpe, Margherita Zorzi. A Branching Distributed Temporal Logic for Reasoning about Entanglement-Free Quantum State Transformations. Information and Computation 255:311-333, 2017.
- [J23] Maria-Camilla Fiazza, Michele Peroli, Luca Viganò. Defending Vulnerable Security Protocols by Means of Attack Interference in Non-Collaborative Scenarios. *Front. ICT*, 2015.
- [J22] Matteo Cristani, Erisa Karafili, Luca Viganò. Tableau Systems for Reasoning about Risk. Journal of Ambient Intelligence and Humanized Computing 5(2):215-247, Springer-Verlag, Berlin, Germany, 2014.
- [J21] Pedro Adão, Paulo Mateus, Luca Viganò. Protocol Insecurity with a Finite Number of Sessions and a Cost-Sensitive Guessing Intruder is NP-complete. *Theoretical Computer Science* 538:2–15, Elsevier Science, Amsterdam, The Netherlands, 2014.
- [J20] Carlos Caleiro, Luca Viganò, Marco Volpe. On the Mosaic Method for Many-Dimensional Modal Logics: A Case Study Combining Tense and Modal Operators. *Logica Universalis* 7(1):33–69, Springer-Verlag, Berlin, Germany, 2013.
- [J19] Andrea Masini, Luca Viganò, Marco Volpe. Labeled Natural Deduction for a Bundled Branching Temporal Logic. Journal of Logic and Computation 21:1093–1163, Oxford University Press, Oxford, 2011.
- [J18] Michele Barletta, Alberto Calvi, Silvio Ranise, Luca Viganò, Luca Zanetti. Workflow and Access Control Reloaded: a Declarative Specification Framework for the Automated Analysis of Web Services. Scalable Computing: Practice and Experience 12(1):1–20, ISSN 1895–1767, 2011.
- [J17] David Basin, Carlos Caleiro, Jaime Ramos, Luca Viganò. Distributed Temporal Logic for the Analysis of Security Protocol Models. *Theoretical Computer Science* 412(31):4007–4043, Elsevier Science, Amsterdam, The Netherlands, 2011.
- [J16] Andrea Masini, Luca Viganò, Margherita Zorzi. Modal Deduction Systems for Quantum State Transformations. Journal of Multiple-Valued Logic and Soft Computing 17(5-6):475-519, OCP Science, Philadelphia, PA, USA, 2011.
- [J15] Michele Barletta, Silvio Ranise, Luca Viganò. A Declarative Two-Level Framework to Specify and Verify Workflow and Authorization Policies in Service-Oriented Architectures. Service-Oriented Computing and Applications 5:105–137, Springer-Verlag, Berlin, Germany, 2011.
- [J14] Andrea Masini, Luca Viganò, Marco Volpe. Back from the future. Journal of Applied Non-Classical Logic 20(3):241-277, Éditions Hermès-Lavoisier, Cachan, France, 2010.
- [J13] Sebastian Mödersheim, Luca Viganò, David Basin. Constraint Differentiation: Search-Space Reduction for the Constraint-Based Analysis of Security Protocols. Journal of Computer Security 18(4):575–618, IOS Press, Amsterdam, The Netherlands, 2010.
- [J12] David Basin, Carlos Caleiro, Jaime Ramos, Luca Viganò. Labeled Tableaux for Distributed Temporal Logic. Journal of Logic and Computation 19:1245–1279, Oxford University Press, Oxford, U.K., 2009.
- [J11] Carlos Caleiro, Luca Viganò, David Basin. On the Semantics of Alice&Bob Specifications of Security Protocols. *Theoretical Computer Science* 367(1-2):88-122, Elsevier Science, Amsterdam, The Netherlands, 2006.
- [J10] Carlos Caleiro, Luca Viganò, David Basin. Relating Strand Spaces and Distributed Temporal Logic for Security Protocol Analysis. Logic Journal of the Interest Group in Pure and Applied Logics (IGPL) 13(6):637–663, Oxford University Press, Oxford, U.K., 2005.
- [J9] David Basin, Sebastian Mödersheim, Luca Viganò. OFMC: A Symbolic Model-Checker for Security Protocols. International Journal of Information Security 4(3):181–208, Springer-Verlag, Berlin, Germany, 2005.

- [J8] Paulo Mateus, Amílcar Sernadas, Cristina Sernadas, Luca Viganò. Modal Sequent Calculi Labelled with Truth-values: Completeness, Duality and Analyticity. Logic Journal of the Interest Group in Pure and Applied Logics (IGPL) 12(3): 227–274, Oxford University Press, Oxford, U.K., 2004.
- [J7] Cristina Sernadas, Luca Viganò, João Rasga, Amílcar Sernadas. Truth-values as labels: a general recipe for labelled deduction. *Journal of Applied Non-Classical Logics* 13(3–4): 277– 315, Éditions Hermès-Lavoisier, Cachan, France, 2003.
- [J6] João Rasga, Amílcar Sernadas, Cristina Sernadas, Luca Viganò. Fibring Labelled Deduction Systems. Journal of Logic and Computation, 12(3):443-473, Oxford University Press, Oxford, U.K., 2002.
- [J5] Luca Viganò. An  $O(n \log n)$ -Space Decision Procedure for the Relevance Logic  $B^+$ . Studia Logica, 66(3):385–407, Kluwer Academic Publishers, Dordrecht, The Netherlands, 2000.
- [J4] David Basin, Seán Matthews, Luca Viganò. Modal logics K, T, K4, S4: labelled proof systems and new complexity results. *The Bulletin of Symbolic Logic*, 5(1):91-93, Association for Symbolic Logic, Poughkeepsie, NY, U.S.A., 1999.
- [J3] David Basin, Seán Matthews, Luca Viganò. Labelled Modal Logics: Quantifiers. The Journal of Logic, Language, and Information, 7(3):237–263, Kluwer Academic Publishers, Dordrecht, The Netherlands, 1998.
- [J2] David Basin, Seán Matthews, Luca Viganò. Natural Deduction for Non-Classical Logics. Studia Logica, 60(1):119–160, Kluwer Academic Publishers, Dordrecht, The Netherlands, 1998.
- [J1] David Basin, Seán Matthews, Luca Viganò. Labelled Propositional Modal Logics: Theory and Practice. Journal of Logic and Computation, 7(6):685–717, Oxford University Press, Oxford, U.K., 1997.

### **Electronic Journal Papers**

- [eJ6] Andrea Masini, Luca Viganò, Marco Volpe. A History of Until. In Proceedings of the M4M'09, Electronic Notes in Theoretical Computer Science 262:189–204, Elsevier Science, Amsterdam, The Netherlands, 2010.
- [eJ5] Pedro Adão, Paulo Mateus, Tiago Reis, Luca Viganò. Towards a Quantitative Analysis of Security Protocols. In A. Di Pierro and H. Wiklicky, editors, Proceedings of the 4th Workshop on Quantitative Aspects of Programming Languages (QAPL 2006), Electronic Notes in Theoretical Computer Science 164(3):3–25, Elsevier Science, Amsterdam, The Netherlands, 2006.
- [eJ4] Luca Viganò. Automated Security Protocol Analysis with the AVISPA Tool. In M. Escardó, A. Jung, M. Mislove, editors, Proceedings of the XXI Mathematical Foundations of Programming Semantics (MFPS'05). Electronic Notes in Theoretical Computer Science 155:61–86, Elsevier Science, Amsterdam, The Netherlands, 2006.
- [eJ3] Carlos Caleiro, Luca Viganò, David Basin. Deconstructing Alice and Bob. In P. Degano and L. Viganò, editors, Proceedings of the ICALP 2005 Workshop on Automated Reasoning for Security Protocol Analysis (ARSPA'05). Electronic Notes in Theoretical Computer Science 135(1), pages 3-22, Elsevier Science, Amsterdam, The Netherlands, 2005.
- [eJ2] Carlos Caleiro, Luca Viganò, David Basin. Metareasoning about Security Protocols using Distributed Temporal Logic. In A. Armando and L. Viganò, editors, Proceedings of the IJCAR'04 Workshop on Automated Reasoning for Security Protocol Analysis (AR-SPA'04). Electronic Notes in Theoretical Computer Science 125(1):67–89, Elsevier Science, Amsterdam, The Netherlands, 2005.

[eJ1] Rafael Accorsi, David Basin, Luca Viganò. Towards an awareness-based semantics for security protocol analysis. In J. Goubault-Larrecq, editor, Post-CAV Workshop on Logical Aspects of Cryptographic Protocol Verification, Electronic Notes in Theoretical Computer Science 55(1):5–24, Elsevier Science, Amsterdam, The Netherlands, 2001.

### **Bookchapters, Conference and Workshop Papers**

- [C95] Laouen Fournet, Sebastian Moedersheim, Luca Viganò. A Decision Procedure for Alpha-Beta Privacy for a Bounded Number of Transitions. In 36th IEEE Computer Security Foundations Symposium. IEEE Computer Society Press, 2024.
- [C94] Luca Viganò. Nuove frontiere della cybersecurity. In Automazione, Diritto e ResponsabilitA. Edizioni Scientifiche Italiane, 2024.
- [C93] Alessandra Di Pierro, Luca Viganò. Quantum Machine Intelligence. In Mapping the Posthuman, Routledge, 2024.
- [C92] Andrew Cook, Luca Viganò. Formal Analysis of Security Protocols with Movement. In ITASEC 2023: The Italian Conference on CyberSecurity. CEUR Workshop Proceedings, 2023.
- [C91] Sébastien Gondron, Sebastian Moedersheim, Luca Viganò. Privacy as Reachability. In 35th IEEE Computer Security Foundations Symposium (CSF 2022), pp. 130-146, IEEE Computer Society Press, 2022.
- [C90] Luca Viganò. Formal Methods for Socio-technical Security (Formal and Automated Analysis of Security Ceremonies). In Coordination Models and Languages. COORDINATION 2022. IFIP Advances in Information and Communication Technology, vol 13271, pp. 3-14. Springer, Cham., 2022.
- [C89] Luca Viganò. Don't Tell Me the Cybersecurity Moon is Shining... (Cybersecurity Show and Tell). In Imagine Math 8, pp. 455-477, Springer, 2022.
- [C88] Luca Viganò. Nicolas Cage is the Center of the Cybersecurity Universe. In Proceedings of IN-TERACT 2021, 18th IFIP TC 13 International Conference on Human-Computer Interaction, LNCS 12932, pp. 13-33, Springer, 2021.
- [C87] Diego Sempreboni, Luca Viganò. Privacy, Security and Trust in the Internet of Neurons. In Socio-Technical Aspects in Security and Trust — 10th International Workshop, STAST 2020, Revised selected papers, LNCS 12812, pp. 191–205, Springer, 2021.
- [C86] Luca Viganò. Explaining Cybersecurity with Films and the Arts. In Imagine Math 7 Between Culture and Mathematics, pp. 297-309, Springer, 2020.
- [C85] Diego Sempreboni, Luca Viganò. X-Men: A Mutation-Based Approach for the Formal Analysis of Security Ceremonies. In Proceedings of IEEE European Symposium on Security and Privacy Workshops, EuroS&P, pp. 87–104, IEEE Computer Society Press, 2020.
- [C84] Luca Viganò, Daniele Magazzeni. Explainable Security. In Proceedings of the 6th Workshop on Hot Issues in Security Principles and Trust (HotSpot 2020), affiliated with IEEE European Symposium on Security and Privacy Workshops, EuroS&P Workshops 2020, pp. 293–300, IEEE Computer Society Press, 2020.
- [C83] Andrew Cook, Luca Viganò. A Game Of Drones: Extending the Dolev-Yao Attacker Model With Movement. In Proceedings of the 6th Workshop on Hot Issues in Security Principles and Trust (HotSpot 2020), affiliated with IEEE European Symposium on Security and Privacy Workshops, EuroS&P Workshops 2020, pp. 280–292, IEEE Computer Society Press, 2020.
- [C82] Matteo Zavatteri, Carlo Combi, Luca Viganò. Resource Controllability of Workflows Under Conditional Uncertainty. In Proceedings of the 3rd International Workshop in Artificial

Intelligence for Business Process Management (AIBPM 2019), held as part of BPM 2019, Lecture Notes in Business Information Processing, vol 362, pp. 68–80, Springer, 2020.

- [C81] Diego Sempreboni, Giampaolo Bella, Rosario Giustolisi, Luca Viganò, What Are the Threats? (Charting the Threat Models of Security Ceremonies). In Proceedings of the 16th International Joint Conference on e-Business and Telecommunications, ICETE 2019 - Volume 2: SECRYPT, Prague, pp. 161–172, SciTePress, 2019.
- [C80] Giampaolo Bella, Karen Renaud, Diego Sempreboni, Luca Viganò, An Investigation into the "Beautification" of Security Ceremonies. In Proceedings of the 16th International Joint Conference on e-Business and Telecommunications, ICETE 2019 - Volume 2: SECRYPT, Prague, pp. 125–136, SciTePress, 2019.
- [C79] Matteo Zavatteri, Carlo Combi, Romeo Rizzi, Luca Viganò. Hybrid SAT-based Consistency Checking Algorithms for Simple Temporal Networks with Decisions. In Proceedings of the 26th International Symposium on Temporal Representation and Reasoning (TIME 2019), Leibniz International Proceedings in Informatics (LIPIcs) 147, pp. 16:1–16:17, Schloss Dagstuhl-Leibniz-Zentrum fuer Informatik, 2019.
- [C78] Diego Sempreboni, Luca Viganò. Privacy, Security and Trust in the Internet of Neurons. In Proceedings of the Re-coding Black Mirror workshop at CPDP2019.
- [C77] Diego Sempreboni, Luca Viganò. Smart Humans... WannaDie?. In Proceedings of the Re-coding Black Mirror workshop at CPDP2019.
- [C76] Luca Viganò, Diego Sempreboni. Schrödinger's Man. In Proceedings of the Re-coding Black Mirror workshop at CPDP2019.
- [C75] Matteo Zavatteri, Luca Viganò. Conditional Uncertainty in Constraint Networks. In 10th International Conference Agents and Artificial Intelligence (ICAART 2018), Revised Selected Papers, LNCS 11352, Springer, 2019.
- [C74] Luca Viganò, Daniele Magazzeni. Explainable Security. In Proceedings of the 2nd IJCAI-18 Workshop on Explainable Artificial Intelligence (XAI), 2018.
- [C73] Erisa Karafili, Matteo Cristani, Luca Viganò. A Formal Approach to Analyzing Cyber-Forensics Evidence. In Proceedings of the 23rd European Symposium on Research in Computer Security (ESORICS 2018), Part I, LNCS 11098, Springer, 2018.
- [C72] Matteo Zavatteri, Luca Viganò. Constraint Networks Under Conditional Uncertainty. In Proceedings of the 10th International Conference on Agents and Artificial Intelligence (ICAART 2018), Volume 2, SciTePress 2018.
- [C71] Giada Sciarretta, Roberto Carbone, Silvio Ranise, Luca Viganò. Design, Formal Specification and Analysis of Multi-Factor Authentication Solutions with a Single Sign-On Experience. In 7th International Conference on Principles of Security and Trust (POST 2018), Held as Part of the European Joint Conferences on Theory and Practice of Software (ETAPS 2018), LNCS 10804, Springer, 2018.
- [C70] Diego Sempreboni, Luca Viganò. MMM: May I Mine Your Mind. In Companion of The Web Conference 2018 (WWW 2018), pages 1573-1576, ACM Press, 2018.
- [C69] Luca Viganò, Diego Sempreboni. Gnirut: The Trouble With Being Born Human In An Autonomous World. In Companion of The Web Conference 2018 (WWW 2018), pages 1567-1571, ACM Press, 2018.
- [C68] Matteo Zavatteri, Carlo Combi, Roberto Posenato, Luca Viganò. Weak, Strong and Dynamic Controllability of Access-Controlled Workflows Under Conditional Uncertainty. In 15th International Conference on Business Process Management (BPM 2017), LNCS 10445, Springer, pages 235-251, 2017.

- [C67] Ruggero Lanotte, Massimo Merro, Riccardo Muradore, Luca Viganò. A Formal Approach to Cyber-Physical Attacks. In 30th IEEE Computer Security Foundations Symposium (CSF 2017), pages 436-450, IEEE Computer Society Press, 2017
- [C66] Carlo Combi, Roberto Posenato, Luca Viganò, Matteo Zavatteri. Weak, Strong and Dynamic Controllability of Access-Controlled Workflows Under Conditional Uncertainty. In 15th International Conference on Business Process Management (BPM 2017), LNCS 10445, pages 235-251, Springer, 2017.
- [C65] Federico De Meo, Luca Viganò. A Formal Approach to Exploiting Multi-Stage Attacks based on File-System Vulnerabilities of Web Applications. In E. Bodden, M. Payer, E. Athanasopoulos, editors, Engineering Secure Software and Systems – 9th International Symposium, ESSoS 2017, LNCS 10379, pages 196–212, Springer, 2017.
- [C64] Giampaolo Bella, Bruce Christianson, Luca Viganò. Invisible Security. In J. Anderson, V. Matyás, B. Christianson, F. Stajano, editors, Security Protocols Workshop XXIV, LNCS 10368, pages 1–9, Springer, 2017.
- [C63] Carlos Caleiro, Paula Gouveia, Jaime Ramos, Luca Viganò. A tableaux-based decision procedure for distributed temporal logic. In Logic and Computation: Essays in Honour of Amilcar Sernadas, pages 73–124, College Publications, 2017.
- [C62] Katia Santacà, Matteo Cristani, Marco Rocchetto, Luca Viganò. A Topological Categorization of Agents for the Definition of Attack States in Multi-Agent Systems. In 14th European Conference on Multi-agent Systems, EUMAS 2016. LNCS 10207, pages 261–276, Springer, 2017.
- [C61] Carlo Combi, Roberto Posenato, Luca Viganò, Matteo Zavatteri. Access Controlled Temporal Networks. In 9th International Conference on Agents and Artificial Intelligence (ICAART), SciTePress, 2017.
- [C60] Federico De Meo, Marco Rocchetto, Luca Viganò. Formal Analysis of Vulnerabilities of Web Applications Based on SQL Injection. In G. Barthe, E. Markatos, P. Samarati, editors, Proceedings of the 12th International Workshop on Security and Trust Management (STM), Heraklion, Crete, Greece, September 26-27, 2016, LNCS 9871, pages 179-195, Springer, 2016.
- [C59] Carlo Combi, Luca Viganò, Matteo Zavatteri. Security Constraints in Temporal Role-Based Access-Controlled Workflows. In E. Bertino, R. Sandhu, A. Pretschner, editors, Proceedings of the Sixth ACM on Conference on Data and Application Security and Privacy, CODASPY 2016, New Orleans, LA, USA, March 9-11, 2016, pages 207–218, ACM Press, 2016.
- [C58] Alberto Calvi, Luca Viganò. An automated approach for testing the security of web applications against chained attacks. In S. Ossowski, editor, Proceedings of the 31st Annual ACM Symposium on Applied Computing, Pisa, Italy, April 4-8, 2016, pages 2095–2102, ACM Press, 2016.
- [C57] Omar Almousa, Sebastian Mödersheim, Luca Viganò. Alice and Bob: Reconciling Formal Models and Implementation. In C. Bodei, G.L. Ferrari, C. Priami, editors, Programming Languages with Applications to Biology and Security - Essays Dedicated to Pierpaolo Degano on the Occasion of His 65th Birthday, pages 66–85, LNCS 9465, Springer, 2015.
- [C56] Omar Almousa, Sebastian Mödersheim, Paolo Modesti, Luca Viganò. Typing and Compositionality for Security Protocols: A Generalization to the Geometric Fragment. In G. Pernul, P.Y.A. Ryan, E. Weippl, editors, Computer Security - ESORICS 2015 - 20th European Symposium on Research in Computer Security, Vienna, Austria, September 21-25, 2015, Proceedings, pages 209–229, LNCS 9327, Springer, 2015. Winner of the Best Student Paper award.
- [C55] Silvio Ranise, Anh Tuan Truong, Luca Viganò. Automated analysis of RBAC policies with temporal constraints and static role hierarchies. In R.L. Wainwright, J.M. Corchado, A. Bechi-

ni, J. Hong, editors, Proceedings of the 30th Annual ACM Symposium on Applied Computing, Salamanca, Spain, April 13-17, 2015, pages 2177–2184, ACM Press, 2015.

- [C54] Giampaolo Bella, Luca Viganò. Security is Beautiful. In B. Christianson, P. Svenda, V. Matyás, J.A. Malcolm, F. Stajano, J. Anderson, editors, Security Protocols XXIII – 23th International Workshop, Cambridge, UK, March 31 - April 2, 2015, Revised Selected Papers, pages 247–250, LNCS 9379, Springer 2015.
- [C53] Michele Peroli, Luca Viganò, Matteo Zavatteri. Non-collaborative Attackers and How and Where to Defend Flawed Security Protocols (Extended Version). In B. Christianson, J.A. Malcolm, V. Matyás, P. Svenda, F. Stajano, J. Anderson, editors, Security Protocols XXII — 22nd International Workshop Cambridge, UK, March 19–21, 2014 Revised Selected Papers, pages 69–90, LNCS 8809, Springer, 2014.
- [C52] Luca Viganò, Marco Volpe, Margherita Zorzi. Quantum State Transformations and Branching Distributed Temporal Logic (Invited Paper). In U. Kohlenbach, P. Barceló, R.J.G.B. de Queiroz, editors, Logic, Language, Information, and Computation – 21st International Workshop, WoLLIC 2014, Valparaíso, Chile, September 1–4, 2014. Proceedings, pages 1–19, LNCS 8652, Springer, 2014.
- [C51] Sebastian Mödersheim, Luca Viganò. Sufficient conditions for vertical composition of security protocols. In S. Moriai, T. Jaeger and K. Sakurai, editors, 9th ACM Symposium on Information, Computer and Communications Security, ASIA CCS'14, Kyoto, Japan – June 3–6, 2014, pages 435–446, ACM, 2014.
- [C50] Matteo Cristani, Erisa Karafili, Luca Viganò. A complete tableau procedure for risk analysis. In B. Crispo, R.S. Sandhu, N. Cuppens-Boulahia, M. Conti and J-L. Lanet, editors, 2013 International Conference on Risks and Security of Internet and Systems (CRiSIS), La Rochelle, France, October 23–25, 2013, pages 1–8, IEEE, 2013.
- [C49] Luca Viganò. The SPaCIoS Project: Secure Provision and Consumption in the Internet of Services. In 2013 IEEE Sixth International Conference on Software Testing, Verification and Validation (ICST), Luxembourg, Luxembourg, March 18–22, 2013, pages 497–498, IEEE, 2013.
- [C48] Sebastian Mödersheim, Thomas Groß, Luca Viganò. Defining Privacy Is Supposed to Be Easy. In K.L. McMillan, A. Middeldorp and A. Voronkov, editors, Logic for Programming, Artificial Intelligence, and Reasoning – 19th International Conference, LPAR-19, Stellenbosch, South Africa, December 14–19, 2013. Proceedings, LNCS 8312, pages 619–635, Springer-Verlag, 2013.
- [C47] Marco Rocchetto, Luca Viganò, Marco Volpe, Giacomo Dalle Vedove. Using Interpolation for the Verification of Security Protocols. In R. Accorsi and S. Ranise, editors, Security and Trust Management – 9th International Workshop, STM 2013, Egham, UK, September 12–13, 2013. Proceedings, LNCS 8203, pages 99–114, Springer-Verlag, 2013.
- [C46] Carlos Caleiro, Luca Viganò, Marco Volpe. A Labeled Deduction System for the Logic UB. In C. Sánchez, K. Brent Venable and E. Zimányi, editors, 2013 20th International Symposium on Temporal Representation and Reasoning (TIME), Pensacola, FL, USA, September 26–28, 2013, pages 45–53, IEEE, 2013.
- [C45] Michele Barletta, Silvio Ranise, Luca Viganò. Automated Analysis of Scenario-based Specifications of Distributed Access Control Policies with Non-Mechanizable Activities. In A. Josang, P. Samarati, M. Petrocchi, editors, STM'12, Proceedings of the 8th International Workshop on Security and Trust Management, held in conjunction with ESORICS 2012, Pisa, Italy, September 13-14, 2012, Revised Selected Papers. LNCS 7783, pages 49-64, Springer-Verlag, 2013.

- [C44] Maria-Camilla Fiazza, Michele Peroli, Luca Viganò. Attack Interference: a Path to Defending Security Protocols. In Mohammad S. Obaidat, José L. Sevillano and Joaquim Filipe, editors, e-Business and Telecommunications – International Joint Conference, ICETE 2011, Seville, Spain, July 18–21, 2011, Revised Selected Papers. Communications in Computer and Information Science Volume 314, pages 296–314, Springer-Verlag, 2012.
- [C43] Luca Viganò. Towards the Secure Provision and Consumption in the Internet of Services. In S. Fischer-Hübner, S. Katsikas and G. Quirchmayr, editors, TrustBus 2012, Trust, Privacy and Security in Digital Business, Vienna, Austria, September 2012. LNCS 7449, pages 214– 215, Springer-Verlag, 2012.
- [C42] Matteo Cristani, Erisa Karafili, Luca Viganò. Towards a Logical Framework for Reasoning about Risk. In Gerald Quirchmayr, Josef Basl, Ilsun You, Lida Xu and Edgar Weippl, editors, CD-ARES 2012, Proceedings of the 2nd IFIP International Workshop on Security and Cognitive Informatics for Homeland Defense (SeCIHD'12), in conjunction with ARES 2012, University of Economics in Prague, Czech Republic, August 20–24, 2012. LNCS 7465, pages 609–623, Springer-Verlag, 2012.
- [C41] Luca Viganò. Automated Validation of Trust and Security of Service-Oriented Architectures with the AVANTSSAR Platform (Invited Paper). In Waleed W. Smari and Vesna Zeljkovic, editors, 2012 International Conference on High Performance Computing & Simulation, HPCS 2012, Madrid, Spain, July 2-6, 2012, pages = 444–447, IEEE Computer Society Press, 2012.
- [C40] Maria-Camilla Fiazza, Michele Peroli, Luca Viganò. An Environmental Paradigm for Defending Security Protocols. In William K. McQuay, Geoffrey Charles Fox and Waleed W. Smari, editors, 2012 International Conference on Collaboration Technologies and Systems, CTS 2012, Denver, CO, USA, May 21–25, 2012, pages 427–438, IEEE Computer Society Press, 2012.
- [C39] Alessandro Armando, Wihem Arsac, Tigran Avanesov, Michele Barletta, Alberto Calvi, Alessandro Cappai, Roberto Carbone, Yannick Chevalier, Luca Compagna, Jorge Cuéllar, Gabriel Erzse, Simone Frau, Marius Minea, Sebastian Mödersheim, David von Oheimb, Giancarlo Pellegrino, Serena Elisa Ponta, Marco Rocchetto, Michael Rusinowitch, Mohammad Torabi Dashti, Mathieu Turuani, Luca Viganò. The AVANTSSAR Platform for the Automated Validation of Trust and Security of Service-Oriented Architectures. In C. Flanagan and B. König (Eds.), TACAS 2012, Proceedings of 18th International Conference on Tools and Algorithms for the Construction and Analysis of Systems. LNCS 7214, pages 267–282, Springer-Verlag, 2012.
- [C38] Maria-Camilla Fiazza, Michele Peroli, Luca Viganò. Security Protocols as Environments: a Lesson from Non-collaboration. In Dimitrios Georgakopoulos and James B. D. Joshi, editors, CollaborateCom 2011, Proceedings of the 7th International Conference on Collaborative Computing: Networking, Applications and Worksharing, Orlando, FL, USA, 15-18 October, 2011, pages 479–486. IEEE Computer Society Press, 2011.
- [C37] Simone Marchesini, Luca Viganò. A Hierarchy of Knowledge for the Formal Analysis of Security-Sensitive Business Processes. In Frédéric Cuppens and Simon Foley and Bogdan Groza and Marius Minea, editors, CRiSIS 2011, Proceedings of the Sixth International Conference on Risks and Security of Internet and Systems, Timisoara, Romania, September 26-28, 2011, pages 78–87, IEEE Computer Society Press, 2011.
- [C36] Maria-Camilla Fiazza, Michele Peroli, Luca Viganò. Attack Interference in Non-Collaborative Scenarios for Security Protocol Analysis. In Javier Lopez and Pierangela Samarati, editors, SECRYPT 2011, Proceedings of the International Conference on Security and Cryptography, Seville, Spain, 18–21 July, 2011; SECRYPT is part of ICETE, The International Joint Con-

ference on e-Business and Telecommunications, pages 144–156. SciTePress, 2011. Extended version (May 2011) available at http://arxiv.org/abs/1106.3746.

- [C35] Roberto Carbone, Marius Minea, Sebastian Alexander Mödersheim, Serena Elisa Ponta, Mathieu Turuani, Luca Viganò. Towards Formal Validation of Trust and Security in the Internet of Services. In J. Domingue et al., editors, Future Internet Assembly, LNCS 6656, pages 193–207. Springer-Verlag, Berlin, Germany, 2011.
- [C34] Matteo Cristani, Erisa Karafili, Luca Viganò. Blocking Underhand Attacks By Hidden Coalitions. In Proceedings of ICAART'11, the 3rd International Conference on Agents and Artificial Intelligence, SciTePress Digital Library, pages 311–320, 2011.
- [C33] Elisa Burato, Matteo Cristani, Luca Viganò. A Deduction System for Meaning Negotiation. In A. Omicini, S. Sardina, W. Vasconcelos, editors, Proceedings of Declarative Agent Languages and Technologies VIII, LNCS 6619, pages 78–95. Springer-Verlag, Berlin / Heidelberg, Germany, 2011.
- [C32] Michele Barletta, Alberto Calvi, Silvio Ranise, Luca Viganò, Luca Zanetti. WSSMT: towards the automated analysis of Security-Sensitive Services and Applications. In Proceedings of the 12th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC), pages 417–424. IEEE Computer Society, 2010.
- [C31] Alberto Calvi, Silvio Ranise, Luca Viganò. Automated Validation of Security-sensitive Web Services specified in BPEL and RBAC. In Proceedings of 12th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC), pages 456–464, IEEE Computer Society Press, 2010.
- [C30] Davide Benetti, Massimo Merro, Luca Viganò. Model Checking Ad Hoc Network Routing Protocols: ARAN vs. endairA. In J. Fiadeiro, S. Gnesi, A. Maggiolo-Schettini, editors, Proceedings of the 8th IEEE International Conference on Software Engineering and Formal Methods, SEFM 2010, pages 191–202, IEEE Computer Society Press, Washington, DC, USA, 2010.
- [C29] Michele Barletta, Silvio Ranise, Luca Viganò. Verifying the Interplay of Authorization Policies and Workflow in Service-Oriented Architectures. In Proceedings of the 2009 International Symposium on Secure Computing (SecureCom 2009), Volume 3 of 2009 International Conference on Computational Science and Engineering (CSE 2009), pages 289–299. IEEE Computer Society Press, 2009. http://doi.ieeecomputersociety.org/10.1109/CSE.2009.172.
- [C28] Sebastian Mödersheim, Luca Viganò. Secure Pseudonymous Channels. In M. Backes and P. Ning, editors, Proceedings of Esorics'09, LNCS 5789, pages 337–354. Springer-Verlag, Berlin, Germany, 2009.
- [C27] Sebastian Mödersheim, Luca Viganò. The Open-Source Fixed-Point Model Checker for Symbolic Analysis of Security Protocols. In A. Aldini, G. Barthe, R. Gorrieri, editors, FOSAD 2008/2009, LNCS 5705, pages 166–194. Springer-Verlag, Berlin, Germany, 2009.
- [C26] Andrea Masini, Luca Viganò, Marco Volpe. A labeled natural deduction system for a fragment of CTL\*. In S. Artemov and A. Nerode, editors, Proceedings of LFCS 2009, Symposium on Logical Foundations of Computer Science, LNCS 5407, pages 338–353. Springer-Verlag, Berlin, Germany, 2009.
- [C25] David Basin, Carlos Caleiro, Jaime Ramos, Luca Viganò. A Labeled Tableaux System for the Distributed Temporal Logic DTL. In S. Demri and C.S. Jensen, editors, *Proceedings of* the 15th International Symposium on Temporal Representation and Reasoning (TIME 2008), pages 101–109, IEEE Computer Society Press, Los Alamitos, CA, 2008.
- [C24] Luca Viganò, Marco Volpe. Labeled Natural Deduction Systems for a Family of Tense Logics. In S. Demri and C.S. Jensen, editors, *Proceedings of the 15th International Symposium* on Temporal Representation and Reasoning (TIME 2008), pages 118–126, IEEE Computer Society Press, Los Alamitos, CA, 2008.

- [C23] Andrea Masini, Luca Viganò, Margherita Zorzi. A Qualitative Modal Representation of Quantum Register Transformations. In G. Dueck, editor, *Proceedings of the 38th IEEE International Symposium on Multiple-Valued Logic (ISMVL 2008)*, IEEE Computer Society Press, pages 131–137, Los Alamitos, CA, 2008.
- [C22] Paul Hankes Drielsma, Sebastian Mödersheim, Luca Viganò, David Basin. Formalizing and Analyzing Sender Invariance. In T. Dimitrakos, F. Martinelli, P.Y.A. Ryan, S.A. Schneider, editors, Proceedings of the 4th international Workshop on Formal Aspects in Security and Trust (FAST2006), LNCS 4691, pages 80–95, Springer-Verlag, Berlin, Germany, 2007.
- [C21] Michael Backes, Sebastian Mödersheim, Birgit Pfitzmann, Luca Viganò. Symbolic and Cryptographic Analysis of the Secure WS-ReliableMessaging Scenario. In L. Aceto and A. Ingólfsdóttir, editors, Proceedings of the 9th International Conference on Foundations of Software Science and Computation Structures (Fossacs 2006), LNCS 3921, pages 428–445, Springer-Verlag, Berlin, Germany, 2006.
- [C20] David Basin, Sebastian Mödersheim, Luca Viganò. Algebraic Intruder Deductions. In G. Sutcliffe and A. Voronkov, editors, Proceedings of the 12th International Conference on Logic for Programming, Artificial Intelligence and Reasoning (LPAR'05), LNAI 3835, pages 549–564, Springer-Verlag, Berlin, Germany, 2005.
- [C19] A. Armando, D. Basin, Y. Boichut, Y. Chevalier, L. Compagna, J. Cuellar, P. Hankes Drielsma, P.C. Heám, O. Kouchnarenko, J. Mantovani, S. Mödersheim, D. von Oheimb, M. Rusinowitch, J. Santiago, M. Turuani, L. Viganò, L. Vigneron. The AVISPA Tool for the Automated Validation of Internet Security Protocols and Applications. In K. Etessami and S.K. Rajamani, editors, *Proceedings of the 17th International Conference on Computer Aided Verification (CAV'05)*, LNCS 3576, pages 281–285, Springer-Verlag, Berlin, Germany, 2005.
- [C18] Paul Hankes Drielsma, Sebastian Mödersheim, Luca Viganò. A Formalization of Off-Line Guessing for Security Protocol Analysis. In F. Baader and A. Voronkov, editors, Proceedings of the 11th International Conference on Logic for Programming, Artificial Intelligence and Reasoning (LPAR'04), LNAI 3452, pages 363–379, Springer-Verlag, Berlin, Germany, 2005.
- [C17] Carlos Caleiro, Luca Viganò, David Basin. Towards a Metalogic for Security Protocol Analysis. In W.A. Carnielli, F.M. Dionísio and P. Mateus, editors, *Proceedings of the Workshop on the Combination of Logics: Theory and Applications (Comblog'04)*, pages 187–196, Center for Logic and Computation, Departamento de Matemática, Instituto Superior Técnico, Lisbon, Portugal, July 2004, ISBN 972-99289-0-8.
- [C16] David Basin, Sebastian Mödersheim, Luca Viganò. Constraint Differentiation: A New Reduction Technique for Constraint-Based Analysis of Security Protocols. In V. Atluri and P. Liu, editors, CCS'03, Proceedings of the 10th ACM Conference on Computer and Communications Security, pages 335–344. ACM Press, New York, U.S.A., 2003.
- [C15] David Basin, Sebastian Mödersheim, Luca Viganò. Constraint Differentiation: A New Reduction Technique for Constraint-Based Analysis of Security Protocols (Extended Abstract). In M. Rusinowitch, editor, SPV'03, Proceedings of the Security Protocols Verification Workshop, co-located with CONCUR'03, www.loria.fr/~rusi/spv.html, pages 8–13, 2003.
- [C14] David Basin, Sebastian Mödersheim, Luca Viganò. An On-The-Fly Model-Checker for Security Protocol Analysis. In E. Snekkenes and D. Gollmann, editors, ESORICS'03, Proceedings of the 8th European Symposium on Research in Computer Security, LNCS 2808, pages 253–270. Springer-Verlag, Berlin, Germany, 2003.
- [C13] Rafael Accorsi, David Basin, Luca Viganò. Modal Specifications of Trace-Based Security Properties. In K. Fischer and D. Hutter, editors, *Proceedings of the Second International Work*shop on Security of Mobile Multiagent Systems (SEMAS-2002), pages 1–11. Research Report DFKI-RR-02-03, DFKI Kaiserslautern/Saarbrücken, Germany, 2002, ISSN 0946–008X.

- [C12] Alessandro Armando, David Basin, Mehdi Bouallagui, Yannick Chevalier, Luca Compagna, Sebastian Mödersheim, Michaël Rusinowitch, Mathieu Turuani, Luca Viganò, Laurent Vigneron. The AVISS Security Protocol Analysis Tool. In E. Brinksma and K. G. Larsen, editors, CAV'02, Proceedings of Computer-Aided Verification, LNCS 2404, pages 349–354. Springer-Verlag, Berlin, Germany, 2002.
- [C11] João Rasga, Amílcar Sernadas, Cristina Sernadas, Luca Viganò. Labelled deduction over algebras of truth-values. In A. Armando, editor, Frontiers of Combining Systems 4 (Proceedings of FroCoS'2002), LNCS 2309, pages 222–239, Springer-Verlag, Berlin, Germany, 2002.
- [C10] David Basin, Frank Rittinger, Luca Viganò. A Formal Analysis of the CORBA Security Service. In D. Bert, J. P. Bowen, M. C. Henson and K. Robinson, editors, *Proceedings of* ZB 2002 (2nd International Conference of Z and B Users), LNCS 2272, pages 330–349, Springer-Verlag, Berlin, Germany, 2002.
- [C9] David Basin, Frank Rittinger, Luca Viganò. A Formal Data-Model of the CORBA Security Service. In Proceedings of ESEC/FSE'01 (8th European Software Engineering Conference), ACM Press, New York, U.S.A., 2001.
- [C8] David Basin, Luca Viganò. A Recipe for the Complexity Analysis of Non-Classical Logics. In M. De Rijke and D. M. Gabbay, editors, Frontiers of Combining Systems (Proceedings of FroCoS'98), pages 57–75, Research Studies Press/Wiley, Baldock, U.K., 2000.
- [C7] David Basin, Seán Matthews, Luca Viganò. A Modular Presentation of Modal Logics in a Logical Framework. In J. Ginzburg, Z. Khasidashvili, C. Vogel, J.-J. Lévy, and E. Vallduví, editors, *The Tbilisi Symposium on Logic, Language, and Computation*, pages 293–307, CSLI publications, Stanford, CA, U.S.A., 1998.
- [C6] David Basin, Seán Matthews, Luca Viganò. Labelled Quantified Modal Logics. In G. Brewka, C. Habel, and B. Nebel, editors, *Proceedings of KI'97*, *Proceedings of the KI'97 (21st German Annual Conference on Artificial Intelligence)*, pages 171–182, LNAI 1303, Springer-Verlag, Berlin, Germany, 1997.
- [C5] David Basin, Seán Matthews, Luca Viganò. A New Method for Bounding the Complexity of Modal Logics. In G. Gottlob, A. Leitsch, and D. Mundici, editors, *Computational Logic* and Proof Theory (Proceedings of KGC'97, Fifth Kurt Gödel Colloquium), LNCS 1289, pages 89-102, Springer-Verlag, Berlin, Germany, 1997.
- [C4] David Basin, Seán Matthews, Luca Viganò. Implementing Modal and Relevance Logics in a Logical Framework. In L. Carlucci Aiello, J. Doyle, and S.C. Shapiro, editors, Proceedings of KR'96 (Fifth International Conference on Principles of Knowledge Representation and Reasoning), pages 386–397, Morgan Kaufmann Publishers, San Francisco, CA, U.S.A., 1996.
- [C3] David Basin, Seán Matthews, Luca Viganò. A Topography of Labelled Model Logics. In F. Baader and K. U. Schulz, editors, Frontiers of Combining Systems (Proceedings of FroCoS'96), pages 75–92, Kluwer Academic Publishers, Dordrecht, The Netherlands, 1996.
- [C2] Alessandro Armando, Alessandro Cimatti, Luca Viganò. Building and executing proof strategies in a formal metatheory. In P. Torasso, editor, Advances in Artificial Intelligence, Proceedings of AI\*IA 1993, LNCS 728, pages 11–22, Springer-Verlag, Berlin, Germany, 1993.
- [C1] Giancarlo Succi, G.A. Marino, Giancarlo Colla, Diego Cò, Sergio Novella, Amedeo Pata, Alessandro Regoli, Luca Viganò. SEL Compiler and Abstract Analyzers. In K. Broda, editor, Proceedings of ALPUK'92 (Fourth UK Conference on Logic Programming), pages 108–123, Springer-Verlag, Berlin, Germany, 1992.

## Theses

- [T3] Luca Viganò. Formal Methods for the Analysis of IT-Security. Habilitationsschrift, Albert-Ludwigs-Universität Freiburg, Germany, 2003.
- [T2] Luca Viganò. A Framework for Non-Classical Logics. PhD thesis, Universität des Saarlandes, Saarbrücken, Germany, 1997.
- [T1] Luca Viganò. Sintesi ed esecuzione di strategie di prova nella metateoria formale di un dimostratore interattivo (Synthesis and execution of proof strategies in the formal metatheory of an interactive theorem prover). Tesi di Laurea, Università di Genova, Italy, 1994.

# Other Publications

- [O4] Luca Viganò. Évariste Galois: a tragic romantic hero. In M. Manaresi, editor, Mathematics and Culture in Europe, pages 333–344, Springer, 2007. English translation of [O2]; extended version of [O3].
- [O3] Luca Viganò. My Galois. In M. Emmer, editor, Mathematics and Culture IV, pages 171–178, Springer, 2007. English translation of [O1].
- [O2] Luca Viganò. Évariste Galois: Un tragico eroe romantico. In M. Manaresi, editor, Matematica e cultura in Europa, pages 339–348, Springer, 2005. Extended version of [O1].
- [O1] Luca Viganò. Il mio Galois. In M. Emmer, editor, Matematica e Cultura 2004, pages 171–178, Springer, 2004.

# 7.5 Edited Publications

## **Books and Proceedings**

- [EB9] Thomas Groß and Luca Viganò, editors. Socio-Technical Aspects in Security and Trust -10th International Workshop, STAST 2020, Virtual Event, September 14, 2020, Revised Selected Papers. Lecture Notes in Computer Science 12812, Springer, 2021.
- [EB8] Frank Piessens and Luca Viganò, editors. Principles of Security and Trust 5th International Conference, POST 2016, Held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2016, Eindhoven, The Netherlands, April 2–8, 2016, Proceedings. Lecture Notes in Computer Science 9635, Springer, 2016.
- [EB7] Cédric Fournet, Michael W. Hicks, Luca Viganò. IEEE 28th Computer Security Foundations Symposium, CSF 2015, Verona, Italy, July 13–17, 2015. IEEE Computer Society, 2015.
- [EB6] Anupam Datta, Michael W. Hicks, Luca Viganò. IEEE 27th Computer Security Foundations Symposium, CSF 2014, Vienna, Austria, July 19–22, 2014. IEEE Computer Society, 2014.
- [EB5] Margus Veanes and Luca Viganò, editors. Tests and Proofs 7th International Conference, TAP 2013, Budapest, Hungary, June 16–20, 2013. Proceedings. Lecture Notes in Computer Science 7942, Springer, 2013.
- [EB4] Keqin Li, Wissam Mallouli, Luca Viganò, editors. SecTest 2012, the Third International Workshop on Security Testing, affiliated with ICST 2012, Montreal, Quebec, April 21, 2012. IEEE Computer Society Press, 2012.
- [EB3] Keqin Li, Wissam Mallouli, Luca Viganò, editors. SecTest 2011, the Second International Workshop on Security Testing, affiliated with ICST 2011, Berlin, Germany, March 25, 2011. IEEE Computer Society Press, 2011.

- [EB2] Pierpaolo Degano and Luca Viganò, editors. Foundations and Applications of Security Analysis, Joint Workshop on Automated Reasoning for Security Protocol Analysis and Issues in the Theory of Security, ARSPA-WITS 2009, Revised Selected Papers, LNCS 5511, Springer-Verlag, Berlin, Germany, 2009.
- [EB1] David Basin, Marcello D'Agostino, Dov M. Gabbay, Seán Matthews, Luca Viganò, editors. Labelled Deduction. Kluwer Academic Publishers, Dordrecht, The Netherlands, 2000.

# Journals

- [EJ9] Carlos Caleiro, Luca Viganò, editors. Special Issue of Logica Universalis) on Logica Universalis, Springer, 2017.
- [EJ8] Luca Spalazzi, Luca Viganò, editors. Special Issue of the Journal of Computer Security (JCS) 23(5) on Security and high performance computing systems, IOS Press, 2015.
- [EJ7] Lujo Bauer, Sandro Etalle, Jerry den Hartog, Luca Viganò, editors. Special Issue of the Journal of Automated Reasoning (JAR) 46(3-4) on Computer Security: Foundations and Automated Reasoning, Elsevier Science, Amsterdam, The Netherlands, 2011.
- [EJ6] Pierpaolo Degano, Ralf Küsters, Luca Viganò, and Steve Zdancewic, editors. Special Issue of Information and Computation 206(2-4) on Computer Security: Foundations and Automated Reasoning, Elsevier Science, Amsterdam, The Netherlands, 2008.
- [EJ5] Pierpaolo Degano and Luca Viganò, editors. Special Issue of International Journal of Information Security 7(1) on Automated Reasoning for Security Protocol Analysis, Springer-Verlag, Berlin, Germany, 2008.
- [EJ4] Pierpaolo Degano and Luca Viganò, editors. Special Issue of Theoretical Computer Science 367(1-2) on Automated Reasoning for Security Protocol Analysis, Elsevier Science, Amsterdam, The Netherlands, 2006.
- [EJ3] Alessandro Armando, David Basin, Jorge Cuellar, Michaël Rusinowitch, Luca Viganò, editors. Special Issue of the Journal of Automated Reasoning 36(1-2), on Automated Reasoning for Security Protocol Analysis, Elsevier Science, Amsterdam, The Netherlands, 2006.
- [EJ2] Pierpaolo Degano and Luca Viganò, editors. Proceedings of the ICALP 2005 Workshop on Automated Reasoning for Security Protocol Analysis (ARSPA'05). Electronic Notes in Theoretical Computer Science ENTCS 135(1), Elsevier Science, Amsterdam, The Netherlands, 2005.
- [EJ1] Alessandro Armando and Luca Viganò, editors. Proceedings of the IJCAR'04 Workshop on Automated Reasoning for Security Protocol Analysis (ARSPA'04). Electronic Notes in Theoretical Computer Science ENTCS 125(1), Elsevier Science, Amsterdam, The Netherlands, 2005.