Curriculum Vitae of Catuscia Palamidessi

http://www.lix.polytechnique.fr/~catuscia/

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1 Personal data

Family name: Palamidessi
First name: Catuscia
Born: in Fucecchio (FI), Italy
Citizenship: Italian
Residence: France
Family status: Married, two children

1.1 Scientific interests


1.2 Education


2 Academic positions

• (From Jan. 2010) Director of Research DR1 at INRIA. INRIA Saclay, Orsay, France.
• (Sept. 2002 - Dec. 2010) Director of Research DR2 at INRIA. INRIA Saclay, Orsay, France.
• (Jan. 1998 - Aug. 2002) Full Professor in Computer Science and Engineering, Dept. of Computer Science and Engineering, PSU, USA.
• (Nov. 1994 - Dec. 1997) Full Professor in Computer Science, Dept. of Computer Science, Università di Genova, Italy.
• (Nov. 1992 - Oct. 1994) Associate Prof. in Computer Science, Dept. of Computer Science, Università di Genova, Italy.
• (May 1988 - Oct. 1992) Assistant Prof. in Computer Science, Dept. of Computer Science, Università di Pisa, Italy.

2.1 Visiting positions

3 Professional activity

3.1 Chair of international conferences

- PC co-chair of QEST 2011. 8th International Conference on Quantitative Evaluation of SysTems. Aachen, Germany, August 2011.

3.2 Organization of workshops, schools, and other events

- Organizer of the session on security and mobility at the DigiCosme Research Day, 10 July 2013.
- Coordinator of the workshops committee of LICS 2000, Santa Barbara, California, June 2000.
- Co-organizer (with Joachim Parrow) of EXPRESS’97, Santa Margherita Ligure, Italy, September 1997.
- Coordinator for the post-conference workshops of the ICLP’94, Santa Margherita Ligure, Italy, June 1994.
- Co-organiser (with Jan Rutten) of the Workshop on Semantics of Functional, Logic and Object-Oriented Languages. (In the context of the ESPRIT BRA Project 3020 "Integration"). Molina di Quosa, Italy, Dec. 1989.
3.3 Executive and Steering Committees

- (2021-) Member of the Board of Trustees of the IMDEA Software Institute.
- (2019-) Member of the Scientific Advisory Board of ANSSI, the French National Cybersecurity Agency.
- (2019-) Member of the Scientific Advisory Board of CISPA, the Helmholtz Center for Information Security.
- (2016-) Member of the Steering Committee of CONCUR, the International Conference in Concurrency Theory.
- (2015-) Member of the Steering Committee of EACSL, the European Association for Computer Science Logics.
- (2014-) Member of the Executive Committee of SIGLOG, the ACM Special Interest Group on Logic and Computation.
- (2014-18) Member of the Steering Committee of LICS, the ACM/IEEE Symposium on Logic in Computer Science.
- (2014-) Member of the Steering Committee of FORTE, the International Conference on Formal Techniques for Distributed Objects, Components, and Systems.
- (2005-20) Member of the Steering Committee of ETAPS, the European Joint Conferences on Theory and Practice of Software.
- (2005-16) Member of the Council of EATCS, the European Association for Theoretical Computer Science.
- (2000-02) Member of the Steering Committee of FLoC’02, the 2002 Federated Logic Conference.
- (1999-02) Member of the Executive Committee of ALP, the Association of Logic Programming.
- (1998-01) Member of the Executive Board of EAPLS, the European Assoc. for Programming Languages and Systems.
- (1997-) Member of the Steering Committee of EXPRESS, the international workshop on Expressiveness in Concurrency.
- (1997-06) Member of the Steering Committee of the ACM SIGPLAN PPDP (Principles and Practice of Declarative Programming), formerly PLILP/ALP.
- (1997-00) Member of the Executive Committee of GULP, the Italian Association of Logic Programming.

3.4 Member of Scientific Associations

- (2010-) Member of the IFIP Working Group 1.7 – Theoretical Foundations of Security Analysis and Design.
- (2005-) Member of the IFIP Working Group 1.8 – Concurrency Theory.
- (2001-14) Member of the IFIP Working Group 2.2 – Formal Description of Programming Concepts.

3.5 Editorial boards

- (2021-) Member of the Editorial Board of TheoretiCS, a diamond Open Access journal published by Episciences.
- (2020-) Member of the Editorial Board of the IEEE Transactions on Dependable and Secure Computing. IEEE Computer Society.
- (2020-) Member of the Editorial Board of the Journal of Logical and Algebraic Methods in Programming, Elsevier.
- (2019-) Member of the Editorial Board of the Journal of Computer Security. IOS Press.
- (2017-20) Member of the Editorial Board of Proceedings on Privacy Enhancing Technologies (PoPETs), De Gruyter.
- (2015-) Member of the Editorial Board of Acta Informatica, Springer.
• (2014-) Member of the Editorial Board of LIPIcs: Leibniz International Proceedings in Informatics, Schloss Dagstuhl –Leibniz Center for Informatics.

• (2006-) Member of the Editorial Board of Mathematical Structures in Computer Science, Cambridge University Press.

• (2004-11) Member of the Editorial Board of the journal on Theory and Practice of Logic Programming, Cambridge University Press.

• (2000-04) Member of the Advisory Board of the journal on Theory and Practice of Logic Programming, Cambridge University Press.

• (2000-) Member of the Editorial Board of the Electronic Notes of Theoretical Computer Science, Elsevier Science.

• (1998-00) Member of the Advisory Board of the Journal of Logic Programming. Elsevier Science (North-Holland).

• (1995-08) Member of the Editorial Board of the Journal of Functional and Logic Programming. Published electronically. Formerly published by The MIT Press.

3.6 Other editorial activity

• Co-editor (with Anca Muscholl and Anuj Dawar) of the special issue of Logical Methods in Computer Science dedicated to selected papers of ICALP 2017.

• Co-editor (with Franck van Breugel, Josée Desharnais, Radha Jagadeesan, and Ana Sokolova) of the special issue of Logical Methods in Computer Science dedicated to Selected Papers of the 27th International Conference on Concurrency Theory (CONCUR 2016).

• Co-editor (with Alexandra Silva and Natarajan Shankar) of the special issue of Logical Methods in Computer Science dedicated to selected papers of LICS 2015 and LICS 2016.


• Co-editor of the special issue of Logical Methods in Computer Science dedicated to selected papers of DisCoTec 2014.


• Co-editor (with Erika Abrahám) of the proceedings of FORTE 2014. LNCS 8461 Springer, 301 pages, 2014.


• Co-editor (with Sebastian Mödersheim and Konstantinos Chatzikokolakis) of the special issue of the Journal of Computer Security dedicated to selected papers of TOSCA 2011 and SecCo 2011.

• Co-editor (with Geoffrey Smith) of the special issue of Mathematical Structures in Computer Science dedicated to Quantitative Information Flow.

• Co-editor (with Samson Abramsky and Michael Mislove) of the special issue dedicated to selected papers of MFPS XXV. TCS 430, Pages 1-126, 2012.


• Co-editor (with Sebastian Mödersheim) of the proceedings of TOSCA 2011. LNCS 6993 Springer, Pages 1-225, 2011.

• Co-editor (with Daniele Gorla) of the special issue dedicated to selected papers of SecCo 2007. JCS 18(2), Pages 187-377, 2010.


• Co-editor (with Samson Abramsky and Michael Mislove) of the proceedings of MFPS XXV. ENTCS 249, Pages 1-490, 2009.

• Co-editor (with Frank D. Valencia) of the proceedings of the LIX Colloquium on Emerging Trends in Concurrency Theory (LIX 2006), *ENTCS 209* Pages 1-200, 2008.


• Co-editor (with Daniele Gorla) of the proceedings of the 5th International Workshop on Security Issues in Concurrency (SecCo 2007), *ENTCS 194* (1) Pages 1-84, 2007.


• (2001-04) Area editor (for the area of Concurrency) of the ALP Newsletter. Published electronically.


• Editor of the Special Issue of the *JFLP* dedicated to selected papers of PLILP/ALP’98. Volume 1999.


• Co-editor (with Ilaria Castellani) of the proceedings of EXPRESS’98, Volume 16(2) of *ENTCS*, Elsevier Science. 1998.

• Co-editor (with Joachim Parrow) of the proceedings of EXPRESS’97, Volume 7 of *ENTCS*, Elsevier Science. 1997.

• Member of the Editorial Committee for the special issues of Computer Languages dedicated to the ICLP’94 Post-conference Workshops.

### 3.7 Program committee member for international conferences


• FORTE 2022. The 42nd International Conference on Formal Techniques for Distributed Objects, Components, and Systems. Lucca, Italy, June 13-17, 2022


• ICTAC 2021. The 18th International Colloquium on Theoretical Aspects of Computing. Nur-Sultan, Kazakhstan, September 6-10, 2021


• FORTE 2021. The 41st IFIP International Conference on Formal Techniques. La Valletta, Malta, 14-18 June 2021.


• **FACS 2018.** The 15th International Conference on Formal Aspects of Component Software. Pohang, South Corea, 10-12 October 2018.

• **TASE 2018.** The 12th International Symposium on Theoretical Aspects of Software Engineering. Guangzhou, China, 29-31 August 2018.

• **PETS 2018.** The 18th Privacy Enhancing Technologies Symposium. Barcelona, Spain, 24-27 July 2018.


• **CONCUR 2017.** The 28th International Conference on Concurrency Theory. Berlin, Germany, 5-8 September 2017.


• ICALP 2017 (Track B). The 44th International Colloquium on Automata, Languages, and Programming. Warsaw, Poland, 10-14 July 2017.


• CSR 2017. The 12th International Computer Science Symposium in Russia. Kazan, Russia, 8-12 June 2017.


• ICALP 2013. Track B. The 40th International Colloquium on Automata, Languages and Programming. Riga, Latvia, 8-12 July 2013.


• **CONCUR 2012.** The 21st International Conference on Concurrency Theory. Newcastle, UK, September 2012.


• **CALCO 2011.** The 4th International Conference on Algebra and Coalgebra in Computer Science. Winchester, UK, August 2011.


• **CONCUR 08.** 19th International Conference on Concurrency Theory. Toronto, Canada. August 2008.


• **CONCUR 2006.** International Conference on Concurrency Theory. Bonn, Germany, August 2006.


• CP’97. Int.l Conf. on Principles and Practice of Constraint Programming. Schloss Hagenberg, Austria, October 1997
• ALP’96. Int.l Conf. on Algebraic and Logic Programming. Aachen, Germany, September 1996.
• CP’96. Int.l Conf. on Principles and Practice of Constraint Programming. Cambridge, MA, USA, Aug 1996.

3.8 Program committee member for other meetings
• PhDs in Logic VIII. Technische Universität Darmstadt, Germany, 9-11 May 2016.

• **TGC 2013.** The 8th International Symposium on Trustworthy Global Computing. Buenos Aires, Argentina, 30-31 August 2013.


• **LIS 2010.** Workshop on Logics in Security. Copenhagen, Denmark, August 2010.


• **SecCo’09, the 7th International Workshop on Security Issues in Concurrency.** Bologna, Italy, September 2009.


• **EXPRESS’06.** 12th International Workshop on Expressiveness in Concurrency. Bonn, Germany, August 2006.

• **EXPRESS’05.** 12th International Workshop on Expressiveness in Concurrency. San Francisco, USA, August 2005.


• **JFPLC 2004** Treizièmes Journées Francophones de Programmation en Logique et de programmation par Contraintes. Angers, France, June 2004.

• **SBLP 2004** Brazilian Symposium on Programming Languages. Niterói, Brazil, May 2004.


• **EXPRESS’03.** 10th International Workshop on Expressiveness in Concurrency. Marseille, France, September 2003. Affiliated with **CONCUR 2003.**


• **SBLP 2003.** Brazilian Symposium on Programming Languages. Ouro Preto, Brazil, May 2003.


• **SBLP 2002.** Brazilian Symposium on Programming Languages. Rio de Janeiro, Brazil, June 2002.
3.9 Invited speaker at international conferences

- **FLOC 2022.** Keynote speaker at the Federated Logic Conference. Haifa, Israel, July-August 2022.
- **CONCUR 2020.** The 31st International Conference on Concurrency Theory Vienna, Austria, September 1-4, 2020.
- **CSL 2018.** The 27th Computer Science Logic Annual Conference. Birmingham, UK, 4-7 September 2018.
- **ICTAC 2015** The 12th International Colloquium on Theoretical Aspects of Computing. Cali, Colombia, October 2015.
- **Petri Nets 2013.** 34th International Conference on Application and Theory of Petri Nets and Concurrency, Milano, Italy, June 2013.
• **PPDP 2002.** International ACM Conference on Principles and Practice of Declarative Programming. (Joint with GCSE and SAIG. Part of PLI’02.) Pittsburgh, USA, October 2002.

• **CONCUR’99.** International Conference on Concurrency Theory. Eindhoven, the Netherlands, August 1999.


### 3.10 Invited speaker at international workshops


- **SecCo 2011.** International Workshop on Security Issues in Concurrency. (Part of Aachen Concurrency and Dependability Week.) Aachen, Germany, September 2011.


3.11 Invited speaker at national conferences and workshops


3.12 Invited talks at other meetings

- Talk on Differential Privacy at the Collège de France. 24 March 2022.
• Dagstuhl seminar on Quantitative and Qualitative Analysis of Network Protocols. Schloss Dagstuhl, Germany, 31 Jan - 5 Feb 2010.


• IFIP WG 2.2 - Formal Description of Programming Concepts. Udine, Italy, September 2006.

• IFIP WG 2.2 - Formal Description of Programming Concepts. Skagen, Denmark. August 31 - September 3, 2005.

• Workshop on Algebraic Process Calculi: The First Twenty Five Years and Beyond. Bertinoro, Italy, August 2005.


• IFIP WG 2.2 - Formal Description of Programming Concepts. Oldenburg, Germany. 13 - 14 September 2002.

• Logic and Interaction Weeks. CIRM, Marseille, February 2002.


• IFIP WG 2.2 - Formal Description of Programming Concepts. Oldenburg, Germany, September 2000.

• DIPLCL’99. Workshop on Distributed and Internet Programming with Logic and Constraint Languages, December 1999.


• 5th Compulog Net meeting on Language Design and Semantic Analysis Methods, Aachen, Germany, September 1996.

• Seminar on Expressiveness in Concurrency. IBFI Schloss Dagstuhl, Germany, September 1996.


• IFIP Working Group 2.2 - Programming Concepts, Methods and Calculi. San Miniato, Italy, June 1994.


• Workshop on Semantics of Concurrent Logic Languages. Eilat, Israel, June 1990.

3.13 Invited panelist


3.14 Dissemination and transfer of scientific knowledge

- Invited speaker at the First Webinar of the Hi! PARIS: Center on AI and Data Analytics for Science, Business and Society. The topic of this webinar is AI Bias and Privacy issues. 15 January 2021.
- Ambassador for The Logic Day and speaker at the round table La logica: pensiero, scienza e società. 14 January 2021.
- (2020-) Animation of the DATAIA Expert Group on Digital Trust. The objective of this EG is to set up projects and initiatives of various kind aimed at facilitating the development of practical solutions for the application of the GDPR, with particular focus on differential privacy and homomorphic encryption.
- Invited speaker at PLMW@POPL 2019, the Programming Logic Mentoring Workshop 2019 (affiliated to POPL 2019). This workshop aims at encouraging graduate students and senior undergraduate students to pursue careers in programming language research, and at educating them on the research career.
- Participation in the round table at the FLOC Women in Logic workshop, a workshop organized to encourage women’s presence in the logic community. Oxford, UK, 8 July 2018.
- Participation in the activities of Women in Logic. Reykjavik, Island, June 2017.
- Participation in the round table at the Logic Mentoring Workshop, an event organized to help young researchers to understand the technical and practical aspects of pursuing a career in academy. Reykjavik, Island, June 2017.
- Participation in a round table at CrossFyre 2017 to discuss initiatives to promote the access of women to research and academic career in Computer Science. Paris, April 2017.
- Organizer of the session on “Safe and reusable distributed programs” at the Digicosme Research Day. 10 July 2013.

3.15 Advising boards and referee activity

- (2021) Panel member for the evaluation of projects submitted to the call HORIZON-CL3-2021-CS-01 “Increased Cybersecurity.
- (2021) Member of the jury for the CONCUR Test-of-Time Award.
- (2021) Vice-president of the jury for the CNIL-Inria Privacy Award.
- (2021-) President of the Commission Scientifique of INRIA Saclay.
- (2021) Member of the CORE conference ranking committee for the area "Cybersecurity and Privacy" in the 2021 round of CORE conference rankings.
- (2021) Evaluator for the applications to the Austrian Science Fund (FWF) Special Research Programmes.
• (2021) Evaluator for the applications to the AXA Chair program: Foundations of Experimental CyberSecurity and Digital Risks.

• (2020-21) Vice-president of the Commission Scientifique of INRIA Saclay.

• (2020-) Member of the EAPLS PhD Award Committee.

• (2020) Member of the KON-NT panel for natural and engineering sciences, Sweden.

• (2020) Member of the committee for a professor position at the Scuola Normale Superiore, Pisa.

• (2020) Member of the committee for a professor position at the CS department of the University of Pisa.

• (2020) External Member of the committee for the promotion to full professor of Prof. Kévin Huguenin. HEC Lausanne, Switzerland.

• (2019) Member of the panel for the Research Evaluation for Development 2019 (RED19) of the Department of Computer Science and Engineering at the University of Gothenburg, Sweden.

• (2019) Member of the committee for associate professor positions in the Datalogi Dept., Aalborg Univ., Denmark.

• (2018) Chair of the Nominating Committee for the 2019 renewal of the office holders of SIGLOG, the ACM Special Interest Group on Logic and Computation.


• (2018) Member of the evaluation panel for the program IKTPLUSS on Digital Security, Research Council of Norway.

• (2015-19) Member of the committee for the Alonzo Church Award for Outstanding Contributions to Logic and Computation. In 2018 Palamidessi is the president of this committee.

• (2014) Member of the committee for the ACM SIGSAC Doctoral Dissertation Award for Outstanding PhD Thesis in Computer and Information Security.

• (2014) Member of the WWTF jury – selection committee for a tenure-track position at the Faculty of Informatics at the Vienna University of Technology.

• (2013) Member of the committee for the Ackermann Award 2013 : The EACSL outstanding dissertation award for logic in Computer Science.

• (2013-16) Member of the Swedish Research Council Committee for Computer Science, 2013. The main duty of this committee is to evaluate and select the grant applications.

• (2010) Member of the LICS 2011 Test Of Time Award Committee.

• (2010) Member of the committee for the promotion to full professor. KTH - Royal Institute of Technology. Stockholm, Sweden.

• (2010-15) Member of the EAPLS PhD Award Committee.

• (2008) Member of the “Commission Scientifique Disciplinaire pour les Programmes Non Thématiques et Jeunes Chercheurs” of the ANR.

• (2008-10) Member of the “Commission Scientifique du Centre de Recherche INRIA Saclay”.

• (2008) Member of the panel to evaluate project proposals for the programme “Information and Communication Technology (ICT)”, sponsored by the Vienna Science and Technology Fund WWTF.

• (2007) Member of the committee for the evaluation of the candidates to the researcher (CR2) positions at INRIA Saclay.

• (2007-15) Member of the INRIA/DRI GTRI (Group de Travail Relations Internationales) du COST (Conseil d’Orientation Scientifique et Technologique) de l’INRIA. Promotion of international initiatives and the evaluation of project proposals.
• (2006-18) President of the selection committee for the EATCS Best Paper Award at the ETAPS conferences.

• (2006-09) Member of the EATCS Award Committee, attributing an annual award to distinguished career in Theoretical Computer science.

• (2006) Member of the assessment panel for the evaluation of the project proposals for the initiative FOCUS of the Dutch National Science Foundation.

• (2005-) Reviewer for the project proposals for the program PRIN, sponsored by the Italian MIUR (“Ministero dell’Istruzione, dell’Università e della Ricerca”).

• (2003) Member of the committee for the evaluation of the candidates to the researcher (CR2) positions at INRIA Futures.


• (2002) Reviewer and Panelist for proposals submitted to the National Science Foundation Program on Software Engineering and Languages.

• (2001) Reviewer of various projects submitted to NWO (Council of Physical Sciences of the Netherlands Organisation for Scientific Research).

• (2001) Reviewer for proposals submitted to Science Foundation Ireland.

• (2000) Referee for the NSF program of Collaboration with Western Europe.


• (1997) External advisor and member of the committee in the competition for an Associate Professorship position in Computer Science at the Univ. of Stockholm, Sweden, 1997.

• (1996) External advisor and member of the committee in the competition for a chair in Computer Science at the Univ. of Lund, Sweden, 1996.


• (1992) Reviewer of various projects submitted to the SION Foundation (Computer Science in the Netherlands).


• Author of several reference letters every year for candidates applying to various positions in Computer Science

4 Projects and grants

4.1 Projects

• (2020-24) PI of the project CRYPTETCS: Cloud-Ready Privacy-Preserving Technologies. Joint ANR-BMBF French-German Call on Cybersecurity. (See the German web site here.) The project aims at building an open source cloud platform promoting the adoption of privacy-preserving computing (PPC) technology by offering a broad spectrum of business-ready PPC techniques (Secure Multiparty Computation, Homomorphic Encryption, Trusted Execution Environments, and methods for Statistical Disclosure Control, in particular Differential Privacy) as reusable and composable services. Besides Inria (COMETE), the other partners are: the Orange Group (France), the Bosh Group (Germany), the university of Stuttgart (Germany), and two SME’s: Zama (a spin-off of CryptoExperts, France) and Edgeless Systems (Germany).
• (2019-24) PI of the project HYPATIA: Privacy and Utility Allied. Funded by an ERC Advanced Grant. The objective of this project is to develop the theoretical foundations, methods and tools to protect the privacy of the individuals while letting their data to be collected and used for statistical purposes. We aim in particular at developing mechanisms that can be applied and controlled directly by the user thus avoiding the need of a trusted party, are robust with respect to combination of information from different sources, and provide an optimal trade-off between privacy and utility.

• (2019-22) Co-PI (with Pablo Piantanida, Centrale SUPélec) of the project LOST2DNN: Leakage of Sensitive Training Data from Deep Neural Networks. Funded by the DATAIA Institute. The goal of this project is to develop a fundamental understanding with experimental validation of the information-leakage of training data from deep learning systems. More specifically, we aim at: (a) Developing a compelling case study based on state-of-the-art algorithms to perform model inversion attacks, showcasing the feasibility of uncovering specified sensitive information from a trained software (model) on real data. (b) Quantifying information leakage: Based on the uncovered attacks, the amount of sensitive information present in trained software will be measured or quantified. The resulting measure of leakage will serve as a basis for the analysis of attacks and for the development of robust mitigation techniques. (c) Mitigating the information leakage: we will explore strategies to avoid the uncovered attacks and minimize the potential information leakage of a trained model.

• (2018-19) PI of the project Privacy-Friendly Data Analytics funded by the Siebel Energy Institute. The objective of this project is to develop methodologies for protecting the privacy of individuals while letting their data be collected and used for analytical purposes.

• (2018-19) Project Coordinator of the STIC project SUPREME: Statistical-Utility Preserving Methods for Privacy Protection. Other PI's: Serge Haddad, ENS Cachan. The objective of this project is to develop the theoretical foundations, methods and tools to protect the privacy of the individuals under certain requirements. We aim in particular at developing mechanisms that: (1) are robust with respect to combination of information from different sources, (2) can be applied directly by the user, thus avoiding the need of a trusted party, and (3) provide an optimal trade-off between privacy and utility.

• (2016-20) Project Coordinator of the ANR project REPAS: Reliable and Privacy-Aware Software Systems via Bisimulation Metrics. Partners: INRIA Saclay, EPI Comète (p.i. Catuscia Palamidessi), INRIA Sophia Antipolis EPI Focus University of Bologna (p.i. Ugo Dal Lago), ENS Paris (p.i. Vincent Danos), ENS Lyon (p.i. Filippo Bonchi). In this project, we aim at investigating quantitative notions and tools for proving program correctness and protecting privacy. In particular, we will focus on bisimulation metrics, which are the natural extension of bisimulation on quantitative systems. As a key application, we will develop a mechanism to protect the privacy of users when their location traces are collected.

• (2016-18) Project Coordinator of the DIGICOSME project OPTIMEC: Optimal Mechanisms for Privacy Protection. Other PI's: Serge Haddad, ENS Cachan. In this project we investigate classes of utility and privacy measures, and devise methods to obtain optimal mechanisms with respect to the trade-off between utility and privacy. In order to represent the probabilistic knowledge of the adversary and of the user, and the fact that mechanisms themselves can be randomized, we consider a probabilistic setting. We focus, in particular, on measures that are expressible as linear functions of the probabilities.

• (2016) Contract with Renault R&D on Protection techniques for location data. The goal of this project was to produce a survey of the state of the art on methods for protecting location data, and a prototype based on our geo-indistinguishability approach for privacy protection in the context of “connected cars”. This project funded the internship of Anna Pazii.

• (2013-16) Project Coordinator of the INRIA-Microsoft Research Lab project Privacy-Friendly Services and Apps. This was a project sponsored by Microsoft Research Lab, with various partners at Microsoft Cambridge and at INRIA.

• (2012-16) PI of the node at INRIA Saclay for the ISN: Institute de la Société Numerique. This was an Interdisciplinary project aiming at bringing together experts in economy and in computer science.

• (2013-2016) Responsible of the French teams for the FP7 project MEALS: Mobility between Europeand Argentina applying Logic to Systems. This project was financed by the FP7 Marie Curie’s IRSES program. Partners: Saarland University, Germany. INRIA Saclay, Rennes, Lille and Sophia Antipolis, France. Rheinisch-Westfälische Technische Hochschule Aachen, Germany. Technische Universität Dresden, Germany. Imperial College of Science, Technology and Medicine, UK, University of Leicester, UK. Technische Universität Eindhoven, NL. Universidad Nacional de Cordoba, AR. Universidad de Buenos Aires, AR.
• (2013-2016.) DRI project PRINCESS: Protecting privacy while preserving data access. Teams involved: INRIA Saclay, France (p.i. C. Palamidessi), Florida International University, USA (p.i. G. Smith), Macquaire University, Australia (p.i. Annabelle McIver), NICTA, Australia (p.i. Carroll Morgan), and University of Pennsylvania, USA (p.i. A. Scedrov).

• (2013-2016) ANR International project PACE, Beyond plain Processes: Analysis, Coinduction and Expressiveness. This project is financed by the ANR. Partners: ENS Lyon (p.i. Daniel Hirschoff), INRIA Sophia-Antipolis (p.i. Davide Sangiorgi), INRIA Saclay (p.i. Catuscia Palamidessi), Chinese Academy of Science of Shangai (p.i. Yuxi Fu).

• (2011-2015) ANR International project LOCALI: Logical Approach to Novel Computational Paradigms. This project is financed by the ANR. Partners: INRIA Rocquencourt (p.i. Gilles Dowek), INRIA Saclay (p.i. Catuscia Palamidessi), Paris VII (p.i. Thomas Erhard), Chinese Academy of Science of Beijin (p.i. Ying Jiang).

• (2011-2015) Large-scale initiative CAPPRIS: Collaborative Action on the Protection of Privacy Rights in the Information Society. The goal of this project is to study the challenges related to privacy in the modern information society, trying to consider not only the technical, but also the social and legal ones, and to develop methods to enhance the privacy protection. This project is financed by INRIA and it involves four INRIA research centers (Saclay, Saphia-Antipolis, Rennes and Grenoble), CNRS-LAAS, Eurecom and the university of Namur. Besides computer scientists, the consortium also includes experts in sociology and in law, thus covering the complementary areas of expertise required to reach the objectives.

• (2009-2013) ANR project PANDA, Analysis of Parallelism and Distribution. This project is financed by the ANR. Partners: INRIA Saclay (p.i. Catuscia Palamidessi), CEA Saclay (p.i. Emmanuel Haucourt), Pôle Parisien (p.i. Damiano Mazza), Pôle Méditerranéen (p.i., Emmanuel Godard), Airbus (p.i. Jean Souyris).

• (2009-2013) ANR project CPP: Confidence, Proof and Probabilities. This project is financed by the ANR. Partners: LSV (p.i. Jean Goubault-Larrecq), CEA (p.i. Olivier Bouissou), INRIA Futurs (p.i. C. Palamidessi), Supelec L2S (p.i. Michel Kieffer), and Supelec SSE (p.i. Gilles Fleury).


• (2007) PAI project MONACO: MOdels for New Applications of Concurrency. Teams involved: Imperial College (p.i. I. Phillips), INRIA Futurs (p.i. C. Palamidessi) and Technische Universität Berlin (p.i. U. Nestmann).

• (2006-2007) ARC project ProNoBiS: Probability and Nondeterminism, Bisimulations and Security. Main partners: ENS Cachan and INRIA Futurs (team SECSI) (p.i. J. Goubault-Larrecq), INRIA Futurs (team Comète) (p.i. C. Palamidessi), PPS (p.i. V. Danos), University of Oxford (p.i. M. Kwiatkowska) and Università di Verona (p.i. R. Segala).


• (2003-2006) ACI Securitè project Rossignol: Verification of Cryptographic Protocols. Teams involved: LIF (p.i. D.Lugiez), INRIA Futurs (p.i. C. Palamidessi), LSV (p.i. F. Jacquemard) and VERIMAG (p.i. Y. Lakhnech).


• (1999 -2002) U.S.-France Cooperative Research on Logic-Based Specification and Verification Tools for Concurrent Languages. Funded by the NSF and the French CNRS. The Principal Investigators of this project were François Fages (ENS), Dale Miller and Catuscia Palamidessi (PSU). (1993-1996) HCM EXPRESS Cooperation Network on Expressiveness of languages for Concurrency. Partners: Centre for Mathematics and Computer Science (CWI) (NL), Università di Genova (I), University of Utrecht (NL), Università di Rome (I), Swedish Institute of Computer Science (SICS) (S), University of Hildesheim (D), University of Amsterdam (NL), INRIA Sophia-Antipolis (F), INRIA Rennes (F), Gesellschaft fur Mathematik und Datenverarbeitung (GMD) (D), University of Sussex (UK). Funded by the European Community (EC).
• (1994-1996) **EC/KIT** Cooperation Network on Logic Programming in Knowledge Representation and Reasoning. Partners: Università di Genova (I), Università di Pisa (I), Imperial College (UK), Universidade Nova de Lisboa (P), Asian Institute of Technology (Thailand). Funded by the EC.

• (1994-1996) **CNR/JNICT** Cooperation Italy-Portugal on Concurrency extensions and parallel implementations of Logic Programming. Partners: Università di Genova (I), Università di Pisa (I), Università di Bologna (I), Universidade Nova de Lisboa (P). Funded by the Italian Comitato Nazionale delle Ricerche (CNR) and the Portuguese JNICT for two years starting from 1994.


• (1994) Cooperation Università di Genova - Università di Pisa - Università di Bologna on Coordination Languages. Funded by the Italian CNR for one year.

### 4.2 Grants

- Several Ecole Polytechnique / Ministère grants for PhD students and visiting scientists.
- Several INRIA grants for PhD students, postdoc and visiting scientists.
- Several CNRS/DGA grants for three years PhD position.
- Several Digiteo grants for visiting scientists.
- Several CNRS grants for visiting scientists.
- EEC grant for three months postdoc position in 1997.
- Fulbright Senior grant for visiting an academic institute in the USA, for three months in 1997. (Declined.)
- GNIM/CNR grant to invite a senior foreign visitor for two months in 1996.
- GNIM/CNR grant to visit the University of Pennsylvania for three weeks. July 1994.
- GNIM/CNR grant to invite a senior foreign visitor for one month. June 1994.
- NATO grant to visit the Centre for Mathematics and Computer Science (CWI) in Amsterdam for eleven months. Dec. 90 - Oct. 91.
- CNR grant to visit the Centre for Mathematics and Computer Science (CWI) in Amsterdam for six months. March 90 - Aug. 91

### 5 Teaching and educational activity

#### 5.1 Supervision of PhD students

- (2021-) **Karima Makhlouf.** IPP. Thesis subject: Combination of Fairness and Privacy in training data.


• (2008-11) Mario Alvim. Ecole Polytechnique. Grant CNRS/DGA. Title of his PhD thesis: Quantitative Approaches for Information Flow: An Analysis of Interactive Systems and Statistical Databases. Defended on October 2011. After the PhD he got a postdoc position at the University of Pennsylvania, USA, and then a tenor track faculty position at the University of Mina Gerais, Brazil.


• (2005-09) **Romain Beauxis.** Ecole Polytechnique. Grant Region Ile de France. Title of his thesis: *A formal approach to the modeling, simulation and analysis of nano-devices.* Defended in May 2009. After the defense he got a postdoc position at Tulane University, USA.


• (1998-02) **Mihaela Oltea Herescu.** Department of Computer Science and Engineering, Penn State University, USA. Title of her PhD thesis: *Probabilistic Asynchronous pi-calculus,* defended on November 2002. She is currently employed at IBM Austin, Texas.

• (1990-94) **Alessandra di Pierro.** Title of her PhD thesis: *Negation and Infinite Computations in Logic Programming.* Department of Computer Science, Università di Pisa, Italy. Thesis defended on February 2004. Afterwards she got a position at the Università di Verona as an Assistant Professor.

## 5.2 Supervision of other students

**Supervisor of master students and interns:**

– Filippo Galli, PhD student, ENS Pisa, Italy. From Sept 2021 until March 2022.
– Sayan Biswas, Master student, Univ. of Bath, UK. From Jun 2019 until Sep 2019.
– Arthur Américo. Universidade Federal de Minas Gerais. From April 2018 until June 2018.
– Valeria Vignudelli. Univ. of Bologna, Italy. From March 2016 until July 2016.
– Michela Paolini. IMT Institute for Advanced Studies, Lucca, Italy. From Sept 2012 until Dec 2012.

- Supervisor of various Master Theses in Computer Science at the Dept. of Computer Science and Engineering, Penn State University, USA, at the Dept. of Computer Science, Università di Genova, Italy, and at the Dept. of Computer Science, Università di Pisa, Italy.
- Supervisor of various Honnor Theses in Computer Science and Engineering at the Dept. of Computer Science and Engineering, Penn State University, USA.

5.3 Supervision of postdocs

- (Aug 2021-) Sami Zhioua.
- (Jan 2021-) Hamid Jalalzai.
- (Nov 2020-) Gangsoo Zeong (aka Kangsoo Jung).
- (Jan 2018-Mar 19) Valentina Castiglioni. Afterwards she took a postdoc position at the University of Reykjavik, Island.
- (Oct 2015-Nov 16) Ehab ElSalamouny. Afterwards he took an associate professor position at Suez Canal University, Egypt.
- (Oct 2013-Apr 15) Yusuke Kawamoto. Afterwards he took research scientist position at AIST, Japan.
- (Oct 2013-Nov 13) Tobias Heindel. Afterwards he took a research associate position at the University of Edinburgh, UK.
- (Mar 2012-Feb 13) Matteo Mio. Afterwards he took a CNRS research position at ENS Lyon, France.
- (Nov 2011-Oct 12) Ehab ElSalamouny. Afterwards he took an associate professor position at Suez Canal University, Egypt.
- (Mar 2011-Feb 12) Marco Giusti. Afterwards he took a postdoc position at the University of Lisbon, Portugal.
- (Nov 2010-Oct 12) Miguel E. Andrés. Afterwards he took a position at Google Mountain View, USA.
- (Nov 2009-Feb 11) Jérémy Dubreil. Afterwards he took a software engineer position at Facebook UK.
- (Nov 2009-June 10) Filippo Bonchi. Afterwards he took a CNRS research position at the ENS Lyon.
- (Nov 2007-Oct 08) Simon Kramer. Afterwards he took a research fellow position at University of Tsukuba, Japan.
- (Mar 2007-Mar 08) Jean Krivine. Afterwards he took a CNRS research position at the University of Paris VII.
- (Sep 2006-Nov 07) Angelo Troina. Afterwards he took an assistant professor position at the Università di Torino, Italy.
- (Sep 2005-Sep 07) Peng Wu. Afterwards he took an associate professor position at the Chinese Academy of Science, Peking, China.
- (Sep 2004-Dec 05) Tom Chothia. Afterwards he took a lecturer position at the University of Birmingham, UK.
- (Aug 2004-Sep 05) Jun Pang. Afterwards he took a research assistant position at the University of Luxembourg.
5.4 Examiner for habilitation thesis


- **Elham Kashefi** (LIP6, CNRS, France). Title of the thesis: *Verification of Quantum Computing*. Defended on February 8, 2018.


5.5 Member of advisory boards for PhD programs and thesis

- (2012-) External member of the scientific council for the PhD in Computer Science at the University of Pisa, Italy.

- (2020-) Member of the advising committee of Abhishek Sharma, PhD student supervised by Maks Ovsjanikov, IPP, France.

- (2014-18) Member of the advising committee for Hamid Ebadi, PhD student supervised by David Sands, Chalmers University, Sweden. Also reviewer and member of the committee for the half-way thesis defense (Licentiate) that took place in June 2015.

- (2014-18) Member of the advising committee for the PhD thesis of Jun Wang (PhD student supervised by Qiang Tang and Peter Ryan), University of Luxembourg.

- (2014-16) Member of the advising committee for the PhD thesis of Andrea Margheri (PhD student supervised by Rosario Pugliese), University of Florence, Italy.

5.6 Examiner of PhD thesis

- **Changmin Wu** (IPP, Palaiseau). Member of the committee board at the PhD defense. Title of the thesis: *Graph Representation Learning: from Kernels to Neural Networks*. Advised by Michalis Vazirgiannis. Defended in November 2021.


- **Raphaëlle Crubillé** (IRIF, Université Paris Diderot). Member of the committee board at the PhD defense. Title of the thesis: *Distances comportementales pour les programmes probabilistes d’ordre supérieur*. Defended in June 2019.


• Hamid Ebadi (Chalmers University, Sweden). Member of the committee board at the PhD defense. Title of the thesis: Dynamic Enforcement of Differential Privacy. Supervised by David Sands. Defended on March 5, 2018.

• Nicolas Bonifas (Ecole Polytechnique, France). Member of the committee board at the PhD defense. Title of the thesis: Geometric and Dual Approaches to Cumulative Scheduling. Supervised by Philippe Baptiste. Defended in December 2017.

• Maggie Mhanna (CentraleSupelec, France). Member of the committee board at the PhD defense. Supervised by Pablo Piantanida. Defended in January 2017.


• Tri Mihn Ngo (University of Twente, Italy). PhD thesis reviewer and member of the committee board at the PhD defense. Title of the thesis: Qualitative and Quantitative Information Flow Analysis for Multi-threaded Programs. Advised by University of Twente. Defended in April 2014.


- President of the committee at the “defense day” of all thesis in Computer Science for the year 2009 at the University of Bologna. 20 April 2009.


- Elaine Pimentel, Universidade Federal de Minas Gerais, Brazil. PhD thesis reviewer and member of the committee board at the PhD defense. December 2001.
5.7 Teaching

5.7.1 Courses at the Master Parisien de Recherche en Informatique (MPRI)

- (2015-) MPRI course 2.3.2: Foundations of privacy. Catuscia Palamidessi has designed in 2015 the MPRI M2 course 2.3.2, on the protection of privacy and control of information leakage. The course consists of 24 ours of lectures, and is worth 3 ECTS. Catuscia Palamidessi has been teaching the course, together with Kostas Chatzikokolakis, during the academic years 2015-16, 2016-17, 2017-18 and 2019-20.

- (2004-15) MPRI course 2.3: Concurrency. Catuscia Palamidessi designed in 2004, together with Jean-Jacques Levy, the MPRI M2 course 3.2 on the foundations of concurrency theory. The course consisted of 48 ours of lectures, and was worth 6 ECTS. She has been one of the responsibles of that course, until 2015. She has tought classes during the A.Y. 2007-08, 2006-07, 2005-06, and 2004-05.

- (2003-04) Course on Concurrency at the DEA Programmation.

5.7.2 Courses for PhD students at various universities

- Course on Quantitative Information Flow and on Differential Privacy at the department of Computer Science of the University of Venice, Italy. April 2016.

- Course on Quantitative Information Flow at the department of Computer Science of the University of Pisa, Italy. April 2014.

- Course on Probabilistic Methods in Concurrency at the PhD program in Pisa, Università di Pisa, Italy. Summer 2004.


- CSE 597A Fall 2000. Program Analysis. Graduate seminar, with John Hannan, Mahmut Kandemir and Dale Miller. Dept. of Computer Science and Eng, PSU, USA.

- CSE 597G Spring 1998. Logic and Programming Languages. Graduate seminar, with John Hannan and Dale Miller. Dept. of Computer Science and Eng, PSU, USA.

5.7.3 Tutorials, summer schools and other advanced courses

- Lecturer at MOD'19, the 40th Marktoberdorf Summerschool, devoted to the more formal aspects of safety and security in software systems. July 31 - August 10, 2019.

- Course on formal methods for privacy at EBSIS 2017, a summer school on Event Based Systems with focus on Security, Dependability and Scalability. Timmendorfer Strand, Germany, July 2017.


- Course on Data Privacy at DSSP3: Data Science Starter Program. E. Polytechnique, France, Oct 2015.

- Course on Data Privacy at DSSP2: Data Science Starter Program. E. Polytechnique, France, June 2015.

- Course on quantitative information flow at BISS 2015, the Bertinoro International Spring School. March 2015.

- Tutorial on Quantitative aspects of Information Flow and Privacy at WoLLIC, the Workshop on Logic, Language, Information and Computation. TU Darmstadt, Germany, August 2013.

- Course on Quantitative Information Flow and on Differential Privacy at RIO 2012, the Summer School on Informatics Río Cuarto, Argentine. February 2012.


5.7.4 Undergraduate courses


- CSE 468 Fall 2000 and Fall 98. Th. of Automata, Languages and Computability. Dept. of Computer Science and Eng. PSU, USA.

- Programming Languages. Dept. of Computer Science, Univ. of Genova, Italy. A.Y. 97-98 and 96-97.

- Theory and Practice of Programming. Dept. of Computer Science, Univ. of Genova, Italy. A.Y. 95-96 and 94-95.

- Theory and Applications of Computing Machines. Dept. of Computer Science, Univ. of Genova, Italy. A.Y. 93-94 and 92-93.

- Theory and Applications of Computing Machines. Dept. of Computer Science, Univ. of Pisa, Italy. A.Y. 89-90.

- Theory of Algorithms and Computability. Dept. of Computer Science, Univ. of Pisa, Italy. A.Y. 91-92, 89-90, and 88-89.
5.8 Teaching awards

- Recipient of the best teaching award for the year 1998 in the Department of Computer Science and Engineering of the Pennsylvania State University.

6 Service to the department and college

- (2021-) President of the Commission Scientifique de l’Inria Saclay.
- (2021) Member of the evaluation committee for Full professor positions, Ecole Polytechnique.
- (2020-21) Vice-president of the Commission Scientifique de l’Inria Saclay.
- (2019-23) Deputy Member of the Commission Consultatives Paritaire de l’Inria.
- (2020) Member of the evaluation committee for Assistant professor positions, Ecole Polytechnique.
- (2019) Member of the evaluation committee for Assistant professor positions, Ecole Polytechnique.
- (2018-) Member of the Commission Scientifique du Centre de Recherche Inria Saclay.
- (2017-) Member of the committee for the assignment of the INRIA International Chairs.
- (2001-02) Faculty advisor of the Penn State Chapter of ACM-W (Women in Computing), Penn State University, USA.
- (2001) Faculty advisor for the Engineering Advising Center. College of Engineering, Penn State University, USA.
- (2000-02) Member of the Award Committee. Dept. of Computer Science and Engineering, Penn State University, USA.
- (2000-01) Chair of the Sabbatical Review Committee. College of Engineering, Penn State University, USA.
- (1999-01) Member of the Graduate Committee. Dept. of Computer Science and Engineering, Penn State University, USA.
- (1999-2000) Member of the Promotion and Tenure Committee. Dept. of Computer Science and Engineering, Penn State University, USA.
- (1999-2000) Member of the Sabbatical Review Committee. College of Engineering, Penn State University, USA.
- (1998-2001) Member of the Climate Committee. College of Engineering, Penn State University, USA.
- (1998-2001) Chair of the Climate Committee. Department of Computer Science and Engineering, Penn State University, USA.
- (1997) Chair of the committee for the admission to the PhD program in Computer Science Univ. of Genova, Italy.