



SCUOLA  
ALTI STUDI  
LUCCA

Decreto IMT Rep. n. 02273(108)VI.1605.05.17  
Ufficio Reclutamento, amministrazione e  
gestione del personale  
Responsabile Lara Bertoni  
Autore Myriam Ros  
Classificazione VII.16

## IL DIRETTORE

**VISTO** lo Statuto di IMT Alt Studi, Lucca, emanato con Decreto n. 02715(206).I.2.20.09.11, pubblicato nella Gazzetta Ufficiale, Serie Generale, n. 233 del 6 ottobre 2011;

**VISTO** il Decreto Legislativo 30 marzo 2001, n. 165 in particolare l'articolo 7;

**VISTA** la legge 30 dicembre 2010 n. 240 "Norme in materia di organizzazione delle università, di personale accademico e reclutamento, nonché delega al Governo per incentivare la qualità e l'efficienza del sistema universitario";

**VISTO** il "Regolamento sugli incarichi e sui rapporti di lavoro in ambito didattico e scientifico" emanato con Decreto Direttoriale n. 02179(93).I.3 del 5.08.2010 e successivamente modificato Decreto Direttoriale n. 04314(388).I.3.03.12.14;

**CONSIDERATA** la richiesta del Prof. Rocco De Nicola con la quale si evidenzia l'alta qualificazione del Prof. Luca Cardelli, *Assistant Director* presso *Microsoft Research* di Cambridge - UK, considerato uno dei massimi esperti internazionali nei seguenti ambiti: *type theory and operational semantics*. La sua alta qualificazione è dimostrata dai significativi riconoscimenti che ha ricevuto dalla comunità scientifica ed in particolare dall'alto numero di citazioni ricevute dalle sue pubblicazioni scientifiche;

**TENUTO CONTO** inoltre che il Prof. Luca Cardelli ha già svolto attività scientifica presso la Scuola IMT Alt Studi Lucca inserendosi con reciproca soddisfazione nei gruppi di ricerca, di studio e in generale nella Community della Scuola;

**VALUTATO** che le suddette circostanze possono consentire di qualificare la prestazione del docente in questione come infungibile

## DECRETA

Di conferire al il Prof. Luca Cardelli, nato a Montecatini Terme il 10/08/1950, l'incarico di Visiting Professor con le seguenti specifiche:

- **Tipo di Contratto:** contratto di lavoro occasionale
- **Data inizio:** 01/06/2017 – **Data fine:** 31/05/2019
- **Oggetto del contratto:** Collaborazione con i membri della Unit SysMA nell'ambito delle seguenti tematiche: *"Developing techniques for comparing dynamical models based on differential equations or stochastic processes, in collaboration with other members of the SysMA unit. These techniques will be applied to study evolutionary paths in basic influence networks of cell-cycle switches"*.
- **Compenso lordo:** attività svolta a titolo gratuito.

(Allegato n. 1 Curriculum Vitae)

Lucca, 05/05/2017

Pietro Pietrini  
Direttore  
Scuola IMT Alt Studi Lucca



Microsoft  
Research

# Luca Cardelli

<a href="#">Current</a>	<a href="#">Past</a>	<a href="#">Me</a>	<a href="#">Papers</a>	<a href="#">Talks</a>	<a href="#">Artifacts</a>	<a href="#">Extra</a>	<a href="#">HotPage</a>
<a href="#">Contact</a>	<a href="#">Curriculum Vitae</a>	<a href="#">Scientific Bio</a>	<a href="#">Press Bio</a>	<a href="#">Business Card</a>	<a href="#">Pictures</a>		

## Luca Cardelli • Curriculum Vitae • 2014

### Short Bio

- Luca Cardelli was born near Montecatini Terme, Italy, studied at the University of Pisa (until 1978-07-12), and has a Ph.D. in computer science from the University of Edinburgh (1982-04-01). He worked at Bell Labs, Murray Hill, from 1982-04-05 to 1985-09-20, and at Digital Equipment Corporation, Systems Research Center in Palo Alto, from 1985-09-30 to 1997-10-31, before assuming a position on 1997-11-03 at Microsoft Research, in Cambridge UK, where he was head of the Programming Principles and Tools and Security groups until 2012, and is currently a Principal Researcher.
- His main interests are in type theory and operational semantics (for applications to language design, semantics, and implementation), and in concurrency theory (for applications to computer networks and to modeling biological systems). He implemented the first compiler for ML (one of the most popular typed functional language, whose recent incarnations are Caml and F#) and one of the earliest direct-manipulation user-interface editors. He was a member of the Modula-3 design committee, and has designed a few experimental languages, including Obliq: a distributed higher-order scripting language (voted most influential POPL'95 paper 10 years later), and Polyphonic C#, a distributed extension of C#. His more protracted research activity has been in establishing the semantic and type-theoretic foundations of object-oriented languages, resulting in the 1996 book "A Theory of Objects" with Martin Abadi. More recently he has focused on modeling global and mobile computation, via the Ambient Calculus and Spatial Logics, which indirectly led to a current interest in Systems Biology, Molecular Programming, and Stochastic Systems.
- He has published over 100 papers, 1 book, and 3 proceedings as chair/editor (POPL'98, ECOOP'03, and DNA 2011). He has served in over 80 Program Committees, and as editor of Theoretical Computer Science - Natural Computing (Elsevier 2008.), Foundations and Trends in Theoretical Computer Science (Now Publishers, 2005.), Transactions in Computational Systems Biology (Springer 2004.), Mathematical Structures in Computer Science (CUP 2001, 2007), Science of Computer Programming (North Holland 1999, 2006), Journal of Functional Programming (CUP 1995, 2004), and Theory and Practice of Object Systems (Wiley 1994, 1999).
- He is a Fellow of the Royal Society, an ACM Fellow, an Elected Member of the Academia Europaea, an Elected Member of AITO, and a long-standing member of EATCS. His web page is at [luca.cardelli.name](http://luca.cardelli.name).

### Shorter Bio

- Luca Cardelli has a Ph.D. in computer science from the University of Edinburgh. He worked at Bell Labs, Murray Hill, from 1982 to 1985, and at Digital Equipment Corporation, Systems Research Center in Palo Alto, from 1985 to 1997, before assuming a position at Microsoft Research, in Cambridge UK, where he was head of the Programming Principles and Tools and Security groups until 2012. Since 2014 he is also a Royal Society Research Professor at the University of Oxford.
- His main interests are in programming languages and concurrency, and more recently in programmable biology and nanotechnology. He is a Fellow of the Royal Society, a Fellow of the Association for Computing Machinery, an Elected Member of the Academia Europaea, and an Elected Member of the Association Internationale pour les Technologies Objets. His web page is at [luca.cardelli.name](http://luca.cardelli.name).

### Shorter Bio with Links

- Luca Cardelli joined Microsoft Research in 1997 and headed the Programming Principles and Tools and Security groups from 2000 to 2012. After working on the foundations of object-oriented programming, an underlying interest in concurrency led him from computing to systems biology and to molecular programming. Currently, his favorite concurrent programming paradigm is the quantitative framework of Chemical Reaction Networks.



On Google Scholar: <http://scholar.google.com/citations?user=np8TgSsAAAAJ&hl=en>.

### Research Interests

- **Programming Languages and Type Theory**
  - Polymorphism, subtyping, objects, modularization, typechecking, semistructured data.
- **Distributed Systems and Concurrency**
  - Concurrent programming, distribution, mobility, global computation, process calculi, logics for concurrency.
- **Computational Biology**

- Molecular Programming, Systems Biology, Natural Computation, Quantitative Semantics.
















## Education

-  PhD in Computer Science, Edinburgh University (1982-04-01).
-   "Laurea" in Computer Science, University of Pisa (1978-07-12).





















## Employment

- University of Oxford, Department of Computer Science: Royal Society Research Professor (2013-10-01..2023-09-30).
- Microsoft Research, Cambridge UK (1997-11-03..Present). Researcher (1997-11-03), Assistant Director(2000-07-19), Principal Researcher (2006-11-23..Present). Head of the Programming Principles and Tools Group and the Security Group (2000-2012).
- Digital Equipment Corporation, Systems Research Center, Palo Alto (1985-09-30..1997-10-31). Member of Research Staff.
- Department of Computer and Information Science, University of Pennsylvania, Philadelphia (1984-01..1984-12). Adjunct Professor.
- AT&T Bell Laboratories, Murray Hill (1982-04-05..1985-09-20). Member of Technical Staff.

## Associations and Awards

- ACM SIGPLAN Programming Languages Achievement Award (2015)
- Royal Society Research Professor (2013).
-  Fellow of The Royal Society (2005).
-  ACM Fellow (2005).
-  Academia Europaea Elected Member (Informatics) (2006).
- AITQ Elected Member (2004).
- The Rozenberg Tulip Award in DNA Computing, 2012.
-  Top Cited Article 2005-2010, Theoretical Computer Science [for "On Process Rate Semantics" .
-  Top Cited Article 1995-2004, Theoretical Computer Science [for "Mobile Ambients" .
-  Most Influential POPL Paper Award 2010 (for 2000) [for "Anytime, Anywhere. Modal Logics for Mobile Ambients" .
-  AITQ Dahl-Nygaard Senior Prize 2007 [Talk: .
-  Most Influential ETAPS 1998 Paper Award (Awarded 2007) [for "Mobile Ambients" .
-  Most Influential POPL Paper Award 2005 (for 1995) [for "A Language with Distributed Scope" .
- Guest Scholar at IMT School for Advanced Studies Lucca (2015-06-1..2017-06-01).
- Adjunct Fellow of Linacre College (2014-04-23..).
- Visiting Professor at the University of Oxford, Computing Laboratory (2010-09-01..2013-09-30).
- Visiting Professor at Imperial College London, Department of Computing (2007-03-01..2012-12-31).
- Visiting Professor at Trento, Department of Information and Communication Technology (2005..2007).
- Member of EATCS (European Association for Theoretical Computer Science).
- Member of ISCB (International Society for Computational Biology).
- Fellow of Girton College (1998..2004).

## Courses, Tutorials, and Lecture Series

- "Molecular Programming" Tutorial, Microsoft Research Cambridge, February 11, 2010. .
- "Molecules as Automata" Graduate Course, University of Warsaw, March 12-13 and May 7-8, 2009.  .
- "Molecules as Automata" International Summer School on Natural Computing, Bertinoro, September 21, 2008.  .
- "Artificial Biochemistry" Graduate Course, University of Trento, May 22-26, 2006. .
- "Abstract Machines of Systems Biology" Summer School on Biology Computation and Information, Dobbiaco, September 12-16, 2005. .
- "Mobility and Spatial Logic", Lecture Series, 5th International School on Formal Methods for the Design of Computer, Communication and Software Systems: Mobile Computing, Bertinoro, April 26-30, 2005.  .
- "Membrane Interactions", Lecture Series, International School on Computational Sciences for Complex Systems in Biology, Rovereto, April 17-24 2004.  .
- "Mobility and Spatial Logic", Lecture Series, 30eme Ecole de Printemps, Agay, March 24-29, 2002.  .
- "Computation on Wide Area Networks", Lecture Series, Lipari Summer School, July 1-14 2001.    .
- "Computation on Wide Area Networks", Cambridge University Minicourse Lectures, May 8,9,15,16 2001
- "Mobility and Security", Lecture Series, Marktoberdorf Summer School, July 27 - Aug 6 1999. .
- "A Theory of Objects", Lecture Series, University of Technology Sydney, August 4-15 1997. .
- "A Theory of Objects", ECOOP Tutorial (with Martin Abadi), Jyväskylä, June 9-13, 1997. .

- "A Theory of Objects", OOPSLA Tutorial (with Martín Abadi), San Jose October 6-10, 1996. 📄
- "Object-Oriented Features", Lecture Series, ACM School on Functional and Object-Oriented Programming (with Martín Abadi), Sobotka, Poland, September 8-14, 1996. 📄 📄
- "Class-based vs. Object-based Languages", PLDI Tutorial, 1996. 📄
- "Type-Driven Language Design", PLDI Tutorial, 1995. 📄
- "Typed Foundations of Object-Oriented Programming", POPL Tutorial, 1992. 📄
- "Typeful Programming", Lecture Series, IFIP State of the Art Seminar on Formal Description of Programming Concepts, Bombay, Feb 21-27, 1992.
- "Typeful Programming", Lecture Series, IFIP State of the Art Seminar on Formal Description of Programming Concepts, CEDAV Serpro, Petropolis, Rio de Janeiro, Brazil, 18-28 April 1989. 📄
- "Semantic methods for object-oriented languages", OOPSLA Tutorial (with John Mitchell), 1988. 📄
- "Data Abstraction, Modularization, and Reusability", Lecture Series, University of Texas Year of Programming, 1986. 📄
- "Advanced Topics in Programming Languages", One-semester Course (with Dave MacQueen), University of Pennsylvania, Department of Computer and Information Science, 1984.

## Scientific Boards

- (2015-01-01..2017-12-31) Member of the Royal Society Research Appointments Panel A(iii)
- (2011-03..2015-02) Member of INRIA's Scientific Board.
- (2012..) Member of the MSR-INRIA Joint Centre Management Committee.
- (2011..) Member of the Advisory Board for the Saarbruecken Graduate School in Computer Science.
- (Aug2009..) Member of the Steering Committee for the annual conference on [DNA Computing and Molecular Programming](#).
- (2004..) Member of the Microsoft Research - University of Trento Centre for Computational and Systems Biology Board of Directors.
- (Jan2010..Dec2012) Member of the Royal Society Dorothy Hodgkin Fellowship Selection Panel - A Side.
- (2009..2012) Member of the Advisory Board for [CRISP Consortium](#) (BBSRC Combinatorial Responses in Stress Pathways)
- (2008..2012) Member of the Scientific Advisory Board for [CSBE](#) (BBSRC EPSRC Centre for Systems Biology at Edinburgh)
- (May2007..Dec2009) Member of the Royal Society Industry Fellowship Scheme Joint Panel.
- (Jan2007..Mar2009) Member of the Royal Society Sectional Committee 1.
- (Jan2006..Dec2008) Member of the Royal Society and Académie des Sciences Microsoft European Science Award Committee.
- (Jan2006..Jul2007) Member of the Royal Society Research Grants Board A.
- (2004..2007) Member of the PhD Thesis External Review Committee of the ICT Graduate School, University of Trento.

## Editorial Boards

- (2014..2016) Subject Editor for Computer Science, Royal Society Open Science.
- (2012..) Member of the Editorial Board, Electronic Proceedings in Theoretical Computer Science (arXiv-published open access journal).
- (2008..) Member of the Editorial Board, Theoretical Computer Science journal, series C - Theory of Natural Computing (TCS-C), Elsevier.
- (2004..2012) Member of the Editorial Board, Transactions on Computational Systems Biology, Springer.
- (2001..2007) Member of the Scientific Board, Mathematical Structures in Computer Science (MSCS), Cambridge University Press.
- (1999..2006) Member of the Editorial Board, Science of Computer Programming (SCP), North Holland.
- (1995..2004) Member of the Editorial Board, Journal of Functional Programming (JFP), Cambridge University Press.
- (1994..1999) Associate Editor, Theory and Practice of Object Systems (TAPOS), Wiley.

## Program Committees

- 2011: **Program co-chair** of the International Conference on DNA Computing and Molecular Programming (DNA17).
- 2003: **Program chair** of the European Conference on Object Oriented Programming (ECOOP'03).
- 1998: **Program chair** of the ACM Symposium on Principles of Programming Languages (POPL'98).



SASB'17, CMSB'17, [DNA23](#), [DNA22](#), [SASB'16](#), [CMSB'16](#), [HSB'16](#), [HSB'15](#), [DNA21](#), [CMSB'15](#), DNA20, MeCBIC'14, CS2Bio'14, MeCBIC'13, Advances in Molecular Programming and Computing workshop'13, CS2Bio'13, [MFPS XXIX](#), CMSB'13, DNA19, MeCBIC'12, CS2Bio'12, DNA18, CMSB'12, [CONCUR'12](#), Computability in Europe'12, DNA17 (CoChair), CS2Bio'11, [SASB'11](#), MeCBIC'10, [AlgebraicNumericBiology'10](#), CS2Bio'10, [CONCUR'10](#), [UnconventionalComputation'10](#), [DNA16](#), [FBTC'10](#), [Static Analysis in Systems Biology'10 WS](#), [ICSB'10 \(Scientific Committee\)](#), [Developments in Computational Models'09 WS](#), [EXPRESS'09 WS](#), [UnconventionalComputation'09](#), [MeCBIC'08](#), [FBTC'08](#), [ECCB'08](#), [AlgebraicBiology'08](#), [CMSB'08](#), [CMSB'07](#), [NETTAB'07](#), [AlgebraicBiology'07](#), [QALP'07](#), [FBTC'07](#), [CONCUR'07](#), [CMSB'06](#), [ECOOP'06](#), [FOSSACS'06](#), BioConcur'05, CMSB'05, ECOOP'05, [COORD'05](#), [PLAN-X'05](#), [FM'05](#), [TGC'05](#), [ESOP'05](#), [NETTAB'04 WS](#), [BioConcur'04 WS](#), [Express'04 WS](#), [TCS'04](#), [CMSB'04](#), [ECOOP'04](#), [EDBT'04](#), [ASIAN'03](#), [OOPSLA'03](#), [BioConcur'03 WS](#), [CSMB'03](#), [ECOOP'03 \(Chair\)](#), Web Dynamics WS'02, TCS'02, MA'01,

PDCIWNMC WS'01 (in IPDPS'01), PODS'01, SAINT'01, FOOL'01, FOSSACS'01, CONCUR'00, TCS'00, ECOOP'00, DBPL WS'99, ASAP'99, WESTAPP WS'99, FOOL'99 (Chair), ESOP'99, PLILP/ALP'98, HLCL'98, ECOOP'98, ESOP'98, POPL'98 (Chair), DSL'97, ECOOP'97, Types in Compilation WS '97, Domain Specific Languages WS '97, Nomadic Computing WS '97, ICDE'97, FASE'97, COORD'97, FOOL'97, Agents WS ECOOP'96, ICFP'96, COORD'96, OOPSLA'95, COOTS'95, MFPS'95, POPL'94, FPCA'91, OOPSLA'91, ECOOP'91, ECOOP-OOPSLA'90, POPL'90, L&FP'88, LICS'87, FPCA'87.

## Working Groups

- Founding Member, IFIP WG2.8 (Functional Programming), 1988..2000.
- Member, IFIP WG2.2 (Formal Description of Programming Concepts), 1986..1995.

## Patents

-  US patent 6,826,751 B1 granted 2004-11-30.
-  US patent 7,721,335 granted 2010-05-18.

## Publications

- [Top Publications](#)
- [All Publications](#)
- [Recent Publications](#)
- [Downloadable Publications](#)

## Recent Publications • 2010

### Books and Edited Proceedings

1. **A theory of objects.** Martín Abadi and Luca Cardelli. Springer, 1996.
2. **ECOOP 2003 - Object-Oriented Programming.** Luca Cardelli (Ed.). 17th European Conference, Darmstadt, Germany, July 2003, Proceedings. Lecture Notes in Computer Science, Vol. 2743, Springer, 2003. ISBN 3-540-40531-3.
3. **POPL'98: The 25th ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages.** Luca Cardelli (Ed.). The Association for Computing Machinery, 1998. ACM ISBN 0-89791-979-3.

### Journal Publications since 2000

1. **Computational Modeling of the EGFR Network Elucidates Control Mechanisms Regulating Signal Dynamics.** Dennis Y.Q. Wang, Luca Cardelli, Andrew Phillips, Nir Piterman, Jasmin Fisher. BMC Systems Biology 2009, 3:118. doi:10.1186/1752-0509-3-118.
2. **An Intuitive Modelling Interface for Systems Biology.** Ozan Kahramanoğlu, Luca Cardelli, Emmanuelle Caron. Developments in Computational Models 2009. Special issue of IJSI (In press).
3. **A Programming Language for Composable DNA Circuits.** Andrew Phillips, Luca Cardelli. Journal of the Royal Society Interface, August 6, 2009 6:S419-S436.
4. **Turing Universality of the Biochemical Ground Form.** Luca Cardelli, Gianluigi Zavattaro. Mathematical Structures in Computer Science (In press).
5. **A Process Model of Actin Polymerisation.** Luca Cardelli, Emmanuelle Caron, Philippa Gardner, Ozan Kahramanoğlu, Andrew Phillips. Electronic Notes in Theoretical Computer Science (ENTCS) 229(1) February 2009, 127-144.
6. **A Process Model of Rho GTP-binding Proteins.** Luca Cardelli, Emmanuelle Caron, Philippa Gardner, Ozan Kahramanoğlu, Andrew Phillips. Theoretical Computer Science. DOI 10.1016/j.tcs.2009.04.029. June 2009.
7. **On Process Rate Semantics.** Luca Cardelli. Theoretical Computer Science 391(3) 190-215, Elsevier, 2008. DOI: <<http://dx.doi.org/10.1016/j.tcs.2007.11.012>>
8. **Bitonal Membrane Systems - Interactions of Biological Membranes.** Luca Cardelli. Theoretical Computer Science 404(1-2), Elsevier, September 2008, pp. 5-18. DOI: <<http://dx.doi.org/10.1016/j.tcs.2008.04.016>>
9. **Compositionality, Stochasticity and Cooperativity in Dynamic Models of Gene Regulation.** Ralf Blossey, Luca Cardelli, Andrew Phillips. HFSP Journal, 2(1):17-28 February 2008.
10. **Ambient Logic.** Luca Cardelli and Andrew D. Gordon. Mathematical Structures in Computer Science. In Press.
11. **A Graphical Representation for Biological Processes in the Stochastic Pi-calculus.** Andrew Phillips, Luca Cardelli, Giuseppe Castagna. Transactions on Computational Systems Biology VII - Lecture Notes in Computer Science, Vol 4230, Springer 2006, ISBN: 978-3-540-48837-8, pp 123-152.
12. **A Compositional Approach to the Stochastic Dynamics of Gene Networks.** Ralf Blossey, Luca Cardelli, Andrew Phillips.

Transactions on Computational Systems Biology IV - Lecture Notes in Computer Science, Vol 3939, Springer 2006, ISBN: 3-540-33245-6, pp 99-122.

13. **A Universality Result for a (Mem)Brane Calculus Based on Mate/Drip Operations.** Luca Cardelli, Gheorghe Păun. International Journal of Foundations of Computer Science, 17(1), pp 49-68. World Scientific Publishing Company. 2006.
14. **Abstract Machines of Systems Biology.** Luca Cardelli. Transactions on Computational Systems Biology. III, LNBI 3737, pp 145-168, Springer 2005.
15. **Deciding Validity in a Spatial Logic for Trees.** Cristiano Calcagno, Luca Cardelli, Andrew D. Gordon. Journal of Functional Programming, Vol 15, pp 543-572. Cambridge University Press, 2005.
16. **Secrecy and Group Creation.** Luca Cardelli, Giorgio Ghelli, Andrew D. Gordon. Information and Computation. Volume 196, Issue 2, 29 January 2005, Pages 127-155.
17. **Modern Concurrency Abstractions for C#.** Nick Benton, Luca Cardelli, Cedric Fournet. ACM Transactions on Programming Languages and Systems (TOPLAS) 26(5), September 2004. pp.269-804.
18. **BioAmbients: An Abstraction for Biological Compartments.** Aviv Regev, Ekaterina M. Panina, William Silverman, Luca Cardelli, Ehud Shapiro. Theoretical Computer Science, Special Issue on Computational Methods in Systems Biology. Volume 325, Issue 1, 28 September 2004, Pages 141-167. Elsevier.
19. **TQL: A Query Language for Semistructured Data Based on the Ambient Logic.** Luca Cardelli, Giorgio Ghelli. Mathematical Structures in Computer Science. Vol 14. Cambridge University Press. 2004. pp 285-327.
20. **A Spatial Logic for Concurrency (Part II).** Luis Caires and Luca Cardelli. Theoretical Computer Science, 322(3) pp. 517-565, September 2004.
21. **A Spatial Logic for Concurrency (Part I).** Luis Caires and Luca Cardelli. Information and Computation, Vol 186/2 November 2003. pp 194-235.
22. **Equational Properties of Mobile Ambients.** Andrew D. Gordon and Luca Cardelli. Mathematical Structures in Computer Science 13(3):371-408, June 2003.
23. **Types for the Ambient Calculus.** Luca Cardelli, Giorgio Ghelli, and Andrew D. Gordon. Information and Computation, 177(2), 2002. pp. 160-194.

#### Conference and Book Chapter Publications since 2000

1. **Processes in Space.** Luca Cardelli, Philippa Gardner. Computability in Europe 2010, Springer 2010 (In press).
2. **Strand Algebras for DNA Computing.** Luca Cardelli. DNA Computing and Molecular Programming. 15th International Conference, DNA 15, Fayetteville, AR, USA, June 2009, Revised Selected Papers. LNCS 5877, Springer, October 2009, pp 12-24.
3. **Artificial Biochemistry.** Luca Cardelli. In A. Condon, D. Harel, J.N. Kok, A. Salomaa, E. Winfree (Eds.) Algorithmic Bioprocesses. Springer 2009. DOI: 10.1007/978-3-540-88869-7\_22.
4. **Termination Problems in Chemical Kinetics.** Gianluigi Zavattaro, Luca Cardelli. 19th International Conference on Concurrency Theory, CONCUR 2008, August 2008, Toronto.
5. **On the Computational Power of Biochemistry.** Luca Cardelli, Gianluigi Zavattaro. Third International Conference on Algebraic Biology, AB 2008, July 2008, Linz.
6. **From Processes to ODEs by Chemistry.** Luca Cardelli. Fifth IFIP International Conference on Theoretical Computer Science, TCS 2008, 261-281, Milan, September 2008. DOI: <[http://dx.doi.org/10.1007/978-0-387-09680-3\\_18](http://dx.doi.org/10.1007/978-0-387-09680-3_18)>
7. **Manipulating Trees with Hidden Labels.** Luca Cardelli, Philippa Gardner, and Giorgio Ghelli. Computation, Meaning and Logic: Articles dedicated to Gordon Plotkin. ENTCS Electronic Notes in Theoretical Computer Science, Vol 172, 2007. pp. 177-201.
8. **Efficient, Correct Simulation of Biological Processes in Stochastic Pi-calculus.** Andrew Phillips, Luca Cardelli. Proc. Computational Methods in Systems Biology, CMSB 2007, Edinburgh, September 2007. LNBI 4695, 184-199, Springer 2007.
9. **A Process Algebra Master Equation.** Luca Cardelli. Fourth International Conference on the Quantitative Evaluation of Systems, QEST 2007, Edinburgh, September 2007. IEEE Publishing, ISBN: 978-0-7695-2883-0, pp 219-224, 2007.
10. **Greedy Regular Expression Matching.** Alain Frisch and Luca Cardelli. Automata, Languages and Programming: 31st International Colloquium, ICALP 2004, Turku, Finland, July 12-16, 2004. Lecture Notes in Computer Science 3142. Springer 2004. ISBN 3-540-22849-7. pp. 618-629.
11. **Brane Calculi - Interactions of Biological Membranes.** Luca Cardelli. Computational Methods in Systems Biology. International Conference CMSB 2004, Paris, France, May 2004, Revised Selected Papers. Lecture Notes in Computer Science, Vol 3082, Springer, 2005. ISBN 3-540-25375-0. pp 257-280.
12. **Type systems.** Luca Cardelli. Allen B. Tucker (Ed.): The Computer Science and Engineering Handbook. CRC Press, 2004. Chapter 97.
13. **A Spatial Logic for Querying Graphs.** Luca Cardelli, Philippa Gardner, and Giorgio Ghelli. Automata, Languages, and Programming, 29th International Colloquium, ICALP 2002, Malaga, Spain, July 2002, Proceedings. Lecture Notes in Computer Science, Vol 2380, Springer, 2002. ISBN 3-540-43864-5. pp 597-610.
14. **Logical Properties of Name Restriction.** Luca Cardelli and Andrew D. Gordon. Typed Lambda Calculi and Applications. 5th International Conference, TLCA 2001, Krakow, Poland, May 2001, Proceedings. Lecture Notes in Computer Science, Vol. 2044, Springer, 2001. ISBN 3-540-41960-8. pp 46-60.
15. **Anytime, Anywhere. Modal Logics for Mobile Ambients.** Luca Cardelli and Andrew D. Gordon. Proceedings of the 27th ACM Symposium on Principles of Programming Languages, 2000. pp 365-377.
16. **Ambient Groups and Mobility Types.** Luca Cardelli, Giorgio Ghelli, and Andrew D. Gordon. Theoretical Computer Science;

Exploring New Frontiers in Theoretical Informatics. International Conference IFIP TCS 2000, Sendai, Japan, August 2000, Proceedings. Lecture Notes in Computer Science, Vol. 1872, Springer, 2000. ISBN 3-540-67823-9. pp. 333-347.

17. **Mobile Ambients**. Luca Cardelli and Andrew D. Gordon. Theoretical Computer Science, Special Issue on Coordination, D. Le Mtyer Editor. Vol 240/1, June 2000. pp 177-213.

## Statistics

- Hirsch index ~58.
- No. ~45 most cited computer scientist.
- No. 3 most acknowledged computer scientist.
- ~800 pages pointing to [www.luca.demon.co.uk](http://www.luca.demon.co.uk) and [lucacardelli.name](http://lucacardelli.name)
- Web site statistics for [lucacardelli.name](http://lucacardelli.name) (~100,000 PDFs downloaded between Aug'06 and Jun'07)