Luca Vercelli

Logician and mathematician

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Education

1996–2001 **Scientific High School**, *Liceo Scientifico Statale "C. Cattaneo" of Torino*.
Evaluation 98/100.

2001–2004 **Degree in Mathematics**, *Università di Torino*.
Evaluation 110/110 L.

2004–2006 **Specialistic Degree in Mathematics**, *Università di Torino*.
Evaluation 110/110 L.

2007–2009 **PhD in Science and High Technology – Mathematics**, *Università di Torino*.
Defended on 2010, February, 2nd.

Specialistic Degree thesis

title 0# and some of its applications (italian only)

supervisor Pr. A. Andretta

subject Set Theory

description It was studied the non-standard set theoretical axiom 0#, and some of the consequences that it induces into mathematics.

PhD thesis

title On the complexity of stratified logics

supervisor Pr. L. Roversi, Dep. of Computer Science

subject Implicit Computational Complexity

description We are studying a family of *Light Logics* that could be fruitful used to characterize the class of Polynomial Time Functions.

Main courses and events followed during PhD

2007 **Dscriptive set theory**, *prof. A. Andretta of Dip. di Matematica*.

2007 **Computational Complexity Theory**, *prof. U. de' Liguoro of Dip. di Informatica*.

2007 **Neuro-fuzzy networks**, *prof. Reyneri of Politecnico di Torino*.

2007 **Set theory seminars**, *various spakers, at Dip. di Matematica*.

April 2007 **Incontro Italiano Insiemi e Modelli (IIIM)**.
Conference on st theory and model theory in Torino.

June 2007 **3me Aterier de Formation de MATHLOGAPS**.
Summer school on set theory, in Aussois (Francia).

2008 **Analytic number theory**, *prof. Bazzanella of Politecnico di Torino*.

2008 **Theoretical computer science seminars**, *various spakers, at Dip. Informatica*.

February 2008 **Workshop on Implicit Computational Complexity (WICC)**.
Workshop on ICC in Parigi.

March 2008 **TYPES**.
Conference on theoretical computer science in Torino.

June 2008 **Research collaboration**.
Proff. Guglielmi and Parigot come in Torino to collaborate with our research.

July 2008 **Intensive scientific English cource**, *prof. S. Clark*.

October 2008 **Giuseppe Peano tra matematica e logica**.
Conference on hystory of mathematics in Torino.

January 2009 **Logical Foundations of Computer Science (LFCS)**.
Conference on theoretical computer science in Miami.

February 2009 **CONCERTO**.
Workshop on complexity theory a Bologna.

May 2009 **Collaborazione di ricerca**.
Una settimana a Nancy per collaborare con i prof. Marion e Guglielmi.

July 2009 **ESSLLI**.
Summer school in Logic, Linguistic and Computation, in Bordeaux (Francia).

Didactics

2008–2009 **Assistent to teaching**.
I was assistent for some courses in Mathematical logic and Analysis at Politecnico di Torino.

2008–2009 **Teacher in a prison**.
I am teacher at the "Carcere Lorusso e Cotugno" of Torino, for prisoners studying for a diploma.

2010 **Teacher of basic computer science**.
at the professional school *Casa di Carità Arti e Mestieri* of Torino.

2010 **Teacher of mathematics**.
at the lycee *A. Einstein* of Torino.

Acknowledgements

2001 **Mathemathics Olympics**.
I arrived to the national phase of the "Archimede Games", in Cesenatico.

2001–2004 **Borsa INdAM**.
I won the INdAM grant for mathematics students.

2009 **Referee**.
I have been *referee* for articles addressed to 3 international conferences (ICALP, LSFA, TLCA) and one international workshop (LCC).

Languages

Italian **Native**

English **Acceptable**

French **Elementary**

Computer skills

OS Linux, Unix, Windows

scientific Octave, Matlab, Maple

typography LaTeX, OpenOffice, MS Office

programming Java, C/C++, Prolog

scripting PHP, Shell, JavaScript

web design HTML, CSS

database MySQL

I contributed to the developement of the web site `http://www.smgoretti.it`.

Interests

theoretical Mathematical logic, with particular regard to proof theory, computational complexity, λ-calculus, set theory.

computers Actually obsessive about Linux and LaTeX.

free time I like sports, but mainly I like trekkings in the mountains. I have been a boy scout for several years.

Publications

Marco Gaboardi, Luca Roversi, and Luca Vercelli. Do Light Logics allow a unified view of Stratification and Boundedness? Notes for SD workshop 2009, inside the ESSLLI summer school. Available at
`http://www.di.unito.it/~vercelli/works/sd.pdf`.

Marco Gaboardi, Luca Roversi, and Luca Vercelli. A by-level analysis of Multiplicative Exponential Linear Logic. In *Proceedings of MFCS'09*, volume 5734 of *Lecture Notes in Computer Science*, pages 344–355. Springer, 2009.

Ugo Dal Lago, Luca Roversi, and Luca Vercelli. Taming modal impredicativity: Superlazy reduction. In *Proceedings of LFCS'09*, pages 137–151, 2009.

Luca Roversi and Luca Vercelli. A local criterion for polynomial time stratified computations. Notes for FOPARA workshop 2009.

Luca Roversi and Luca Vercelli. Safe Recursion on Notation into a light logic by levels. Notes for DICE workshop 2009.

Luca Roversi and Luca Vercelli. Some complexity and expressiveness results on multimodal and stratified proof nets. In *Proceedings of TYPES'08*, pages 306–322, 2009.