Short Curriculum Vitae of Ugo Solitro

Ugo Solitro is born in Montebelluna (TV) the 10th June 1958 and lives nearby Verona. He graduated in **Mathematics** in 1983 and obtained the PhD in **Informatics** in 1990.

He is a researcher in informatics and assistant professor since 1990 at the University of Milan and after 1998 at the University of Verona.

1 Education

1.1 University studies.

After the high school diploma he begins its university studies with a curriculum in Electronic Engineering at the University of Padua. He graduated with honors in Mathematics in 1983.

Graduation thesis (G. Sambin, supervisor) was about a new proof of the Theorem of J. Herbrand that involves computational techniques.

1.2 Post degree studies

In November 1983, just after the degree, he was been admitted to the *Scuola di Specializzazione in Logica Matematica* at the University of Siena *Università di Siena* where he attended courses by R. Magari and K. Devlin (Set Theory and Algebraic Logic), C. Bernardi and P. Odifreddi(Computability), D. Prawitz, G. Sambin and A. Troelstra (Logic), A.F. Pixley and R. McKenzie (Universal Algebra), Category Theory and Model Theory (D. Mundici and M. Servi).

In January 1986, he has been admitted to a PH.D. Program (Dottorato) in Informatics of the Universities of Milan and Turin. He received his doctoral degree in September 1990 with a thesis about some computational aspects of Linear logic.

2 Research activities.

2.1 Computational methods in logic.

Preparing its degree thesis he began to investigate with Silvio Valentini the formulae validity problem in modal logic with computational methods. The developed techniques have served in a new version of Herbrand's theorem. Later he extended his research to constructive logics, in particular intuitionistic logic, Martin-Löf type theory and linear logic.

2.2 Linear logic, algebraic models for computing

In 1990 and 1991, he was visiting researcher at the Mathematical Institute of the University of Oxford. During that period, he began a cooperation with Prof. Francisco Miraglia (*University of São Paulo*, Brasil) with the aim of finding an algebraic model for computational processes using the theory of sheaves, quantales and linear logic.

Some results of this research are presented in two papers on “quantale valued sets” and in a speech regarding linear logic and pre-sheaves, invited by Prof. Franco Montagna, at the University of Siena (March 1994).

2.3 Linear logic and typed calculi

In the meanwhile, U. S. continued with the study of the computational aspects of constructive logics and in particular with regard to the linear logic of Girard. Some results of these investigations are shown in a few reports and papers also in cooperation with Silvio Valentini and Corrado Priami.

More recently, he was attempting to apply these techniques to the classical logic.

2.4 Computer Science Education

Lately U.S. is associated with the study of teaching methodologies for programming and programming languages in high school and first years of universities. Specifically he set up an experimental application of the technique known as “extreme apprenticeship” for the introduction of programming.

3 Teaching

- 1984/85, University of Siena: “Introduzione all’Informatica”
- 1990/91, *Mathematical Institute (Oxford University)*: a course of lectures about quantale within the *Advanced Class in Logic*.
- from 1991 to 1998, Università degli Studi “Statale” di Milano: Programming Laboratory.
- from 1993 to 1995, Università degli Studi di Verona: Linear Algebra.
- from 1995 to 2013, Università degli Studi di Verona: several introductory courses in Informatics.
- from 1996 to 2001, Università degli Studi di Verona: Algorithms and Data Structures.
- from 2001, Università degli Studi di Verona: Programming (for mathematics students).
- from 2001 to 2003 and 2008/09, Università degli Studi di Verona: Functional Languages.
- 2005/06 and 2007/08, Università degli Studi di Verona: Special programming languages and techniques.
- from 2011 to 2015 and 2008/09, Università degli Studi di Verona: Mathematical Methods for Computer Science.

3.1 Education of prospective high school science teachers.

Since 1999 he was involved in prospective teachers programs.

- From 1999 to 2004, SiSS Veneto (Scuola Regionale Interateneo di Specializzazione per Insegnanti della Scuola Secondaria): “Fundamentals of Informatics”.
- From 2012 to 2015, Università degli Studi di Verona: “Fundamentals and Programming” in the post-graduated curriculum for high school teachers in computer science.

4 Recent designations

- University Verona, from 2012 to 2015: coordinator (and chairperson since 2013) of PAS and TFA (School for high school computer science teachers) in Informatics.
- Since 2019 is coordinator for the University of Verona of the “Piano Lauree Scientifiche” Informatica.

4.1 Conferences and other activities

- Verona, October 2015: organizing and program chair for the “Workshop Informatica e Didattica per la Scuola”.
- Roma, February 2014: scientific committee in the Workshop “L’esperienza del TFA classe A042 e l’insegnamento dell’informatica”.
- Genova, April 2015: organizing and program committee of the Workshop “Computational Teaching, Il pensiero computazionale nella Scuola”.
- Verona, October 2015: organizing committee IWOCA 2015.

Since 2015 U. S. is the coordinator of the working “Informatica e Scuola" in GRIN, and afterwards member of “CINI - Laboratorio Informatica e Scuola”.

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