

## CV of Marianna Nicolosi Asmundo

### Current position

November 2007 assistant professor in Computer Science (S.D. INF/01),  
Department of Mathematics and Computer Science, University of Catania.

### Academic qualifications

- January 2003: Ph.D. in Computer Science, University of Catania,
- July 1997: Degree in Computer Science, University of Catania.

### Past positions

- December 2004/November 2006: POST DOCTORAL POSITION, University of Catania,
- September 2002/August 2004: CNR RESEARCH FELLOWSHIP,
- November 1997/October 2001: MURST FELLOWSHIP for Ph.D students.
- February/April 2007: RESEARCH CONTRACT, INTAS project,
- October 2001/January 2002: RESEARCH CONTRACT, University of Catania,

### Teaching

- *Logica computazionale*, 2008/09, 2009/10, 2010/11, 2011/12, 2012/13, Master Degree in Computer Science, University of Catania,
- *Complessità* module for *Teoria della computabilità*, 2012/13, I Level Degree in Computer Science, University of Catania,
- *Basi teoriche dell'informatica*, 2009/10, I Level Degree in Computer Science, University of Catania,
- *Progetto software*, 2007/08 and 2008/09, I Level Degree in Computer Science, University of Catania,
- Cycle of seminars for *Argomenti scelti di informatica teorica II (2005)* Ph.D. Degree in Computer Science, University of Catania,
- Cycle of seminars for *Argomenti scelti di informatica teorica (2004)* Ph.D. Degree in Computer Science, University of Catania.

### Research interests and activity

I am interested in several topics of computational logic:

- techniques for quantifiers elimination;
- tableau-based deduction systems

- optimization of the delta-rule in classical and modal logics and characterization of Skolem terms,
  - application of epsilon-terms in proofs,
  - proof-search procedures in relational systems for non classical logics;
- decision procedures
  - fragments of set theory,
  - theories of lists and of array,
  - non classical logics;
- proof assistants
  - development of proof scenarios within the Referee verifier, optimization of its inference engine,
- algorithms for inter translation of map, first order and set theoretic formulae;
- compositionality problems in formal methods, integration operations and applications.

### Publications, participation to conferences and other activities

- Research activity published on:
  - Journal of Automated Reasoning,
  - Fundamenta Informaticae,
  - RAIRO - Theoretical Informatics and Applications,
  - Journal of Applied Non-Classical Logics,
  - Rendiconti dell'Istituto di Matematica dell'Università di Trieste,
  - Le Matematiche,
  - Leibniz International Proceedings in Informatics,
  - Lecture Notes in Computer Science,
  - Lecture Notes in Artificial Intelligence.
- International conferences: CSL, IJCAR, FTP, TABLEAUX, UNILOG, International Symposium on Requirements Engineering.
- National conferences: GULP, CILC, WOA.
- PC-member: CILC 2007, CILC 2008, CILC 2009, CILC 2011, CILC 2012.

### Scientific visits to foreign institutions

- October 2011: Institute of Telecommunications, Warsaw, Poland, research cooperation on dual tableau based decision procedures for fragments of logic of relations, with prof. Ewa Orłowska.
- September 2009: Institute of Telecommunications, Warsaw, Poland, research cooperation on automated reasoning in logic of relations, with prof. Ewa Orłowska.
- January/May 2000: University of Toronto, doctoral activity with Marsha Chechik and Steve Easterbrook, on handling inconsistencies in distributed formal specifications.

- November/December 1998: University of Karlsruhe, member of the project *Deduzione in Teoria degli insiemi: Uno strumento per la verifica software*, Programma Vigoni (1998-1999).