Luca Sterpone

Curriculum Vitae

Biography and resume

He was born on April 14, 1979.

He received his Master of Science in Computer Engineering from Politecnico di Torino in 2003.

Ha received his Ph.D. in Computer and Systems Engineerign from Politecnico di Torino in 2007.

From April 2007 to April 2008 he was a post-doc scholarship at the Dipartimento di Automatica e Informatica of Politecnico di Torino on the topic of the design of safety-critical systems.

From April 2008 to April 2010 he was awarded a *post-doc fellowship for young researcher* at the Dipartimento di Automatica e Informatica of Politecnico di Torino on the Information and Comunication Technologies (ICT) area.

His main research interests are focused on the design automation of digital systems, with special emphasis on the safety-critical systems, the automatic synthesis, mapping, place and route of digital systems.

His research activities span on several fields including algorithms, physics modeling of radiation environment and bioinformatics.

He coauthored more than 65 papers on book chapters, journal papers and papers in the proceedings of international conferences.

He authored one book on the design of fault tolerant electronic systems in safety-critical applications.

He has served as reviewer for a number of journal and conferences of the IEEE, and served as member of Technical Program Committee of many international IEEE conferences.

He has taught several courses on various subjects of the Computer Science.

Scientific and Professional Activities

- Member of the Technical Program Committee of the following internation conferences:
    - *IEEE Radiation Effects on Components and Systems* – 2009
    - *IEEE International Sumposium on Industrial Electronics* – 2008, 2009.
- Reviewer for the following international journals:
    - *IEEE Transactions on Nuclear Science*
    - *IEEE Transactions on Instrumentation and Measurement*

- *IEEE Transactions on Computers*
- *IEEE Transactions on VLSI Systems*
- *IEEE Transactions on Industrial Electronics*
- *Journal of Electronic Testing – Theory and Applications*
- Reviewer for the following international conferences:
  - *IEEE Design Automation and Test in Europe (DATE)* (2007–2010)
  - *IEEE International Conference on Electronics, Circuits and System* (2008, 2009)
  - *IEEE Radiation Effects on Component and Systems* (2005-2009)
  - *IEEE Nuclear and Space Radiation Effects Conference* (2008-2009)
  - *IEEE International Conference on Instrumentation and Measurement* (2008)
- Awards and Prizes:
  - Best Paper Award for the paper presented at the *IEEE European Test Symposium 2005*
  - Outstanding Dissertation Award for the Ph.D. thesis presented at the *European Design and Automation Association* in conjunction with the *IEEE Design Automation and Test in Europe 2008*.
- Courses and Tutorials in Universities and International Conferences:
  - "Design of Fault Tolerant Circuits on SRAM-based FPGAs", *invited seminar* in the *Micro-Electronic design techniques* course at the University of Seville, Spain, 10/6/2008 – 13/6/2008
  - "Mitigation of SCU and MCU effects in SRAM-based FPGAs", *conference tutorial* in the *Workshop on Fault Injection & Fault Tolerance in Space FPGAs*, at the ESA/ESTEC, Noordwijk, The Netherlands, 11/9/2009
- Member of the IEEE and of the Nuclear and Plasma Science Society.

Research Activities

The research of Luca Sterpone is focused on **design and automation of electronic systems.** Six are the fields in which he has obtained results of particular relevance and he is currently working on:

Design of electronic systems based on Field Programmable Gate Arrays (FPGAs) devices

Modeling and analysis of radiation-induced effects on electronic systems

Synthesis, mapping and place and route of digital systems

Testing and mitigation of digital systems

Verification and validation of digital systems

Analysis and clustering of biomedical images and data