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Personal

Date of birth: March 14th, 1973

Citizenship: Italian Citizen. Since May 2006 residing in U.S.A.

Research Interests

Software analysis: software reliability

Formal methods: temporal logics, model-checking

Theory: logic, automata theory, concurrency, games.

Education**Ph.D. in Computer Science**

Apr 2006

Advisor: Prof. Salvatore La Torre

Università degli Studi di Salerno, Italy

Thesis title: On the Model Checking of Hierarchical and Recursive State Machines.

Laurea degree in Computer Science

Jan 96–Mar 2002

Maxima cum Laude

Università degli Studi di Salerno, Italy

Advisor: Prof. Margherita Napoli

Thesis title: Raggiungibilità e Scoperta dei Cicli in Macchine a Stati Gerarchiche (in Italian).

Research and Work Experience**Post-doc, University of Illinois at
Urbana-Champaign**

May 2008–present

Prof. Madhusudan Parthasarathy
Urbana, IL, USA.

Dept. of Computer Science

**Research Associate, Università degli Studi
di Salerno**

Nov 2005 – present

Prof. Margherita Napoli's group
Salerno, Italy.

Dept. of Computer Science

**Visiting Scholar, University of Illinois at
Urbana-Champaign**

May 2006–April 2008

Prof. Madhusudan Parthasarathy
Urbana, IL, USA.

Dept. of Computer Science

Professional Activities

REFEREED JOURNALS AND CONFERENCES:
Theoretical Computer Science

Int'l Conference on Computer Aided Verification (CAV)

Int'l Conference on Concurrency Theory (CONCUR)

Int'l Conference Developments in Language Theory (DLT)

Int'l Workshop on Formal Methods for Industrial Critical Systems (FMICS)
Int'l Conference on Formal Engineering Methods (ICFEM)
Int'l Symposium on Logic in Computer Science (LICS)
Int'l Symposium on Theoretical Aspects of Computer Science (STACS)

References

Prof. Salvatore La Torre

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Prof. Margherita Napoli

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Publications

Publications are available online at <http://www.dia.unisa.it/~parlato/>

THESES:

[T1] **On the Model Checking of Hierarchical and Recursive State Machines.** Dissertation (Ph.D.), Università degli Studi di Salerno, Italy, April 2006.

[T2] **Raggiungibilità e Scoperta dei Cicli in Macchine a Stati Gerarchiche.** Laurea degree's thesis, Università degli Studi di Salerno, Italy, March 2002.

JOURNAL ARTICLES:

[1] **Fast Payment Schemes for Truthful Mechanisms with Verification,** Theor. Comput. Sci., vol. 410, n. 8-10, March, 2009, pp. 886-899 (with A. Ferrante, F. Sorrentino, and C. Ventre).

[2] **Verification of Scope-Dependent Hierarchical State Machines,** Information and Computation, vol. 206, n. 9-10, Sept-Oct, 2008, pp. 1161-1177 (with S. La Torre, M. Napoli, and M. Parente).

[3] **A linear time algorithm for the minimum Weighted Feedback Vertex Set on diamonds,** Information Processing Letters, vol. 94, n. 1, Apr. 15, 2005, pp. 29-35 (with F. Carrabs, R. Cerulli, and M. Gentili).

[4] **Minimum Weighted Feedback Vertex Set on Diamonds.,** Electronic Notes in Discrete Mathematics, vol. 17, n. 1, Oct. 20, 2004, pp. 87-91 (with F. Carrabs, R. Cerulli, and M. Gentili).

CONFERENCES AND WORKSHOPS:

[5] **Reducing Context-bounded Concurrent Reachability to Sequential Reachability..** *In Proc. 21st International Conference on Computer Aided Verification (CAV'09)*, Grenoble, France, June 2009 (with S. La Torre, and P. Madhusudan).

- [6] **Analyzing Recursive Programs using Fixed-point Calculus.** *In Proc. International Conference on Programming Language Design and Implementation (PLDI'09)*, Dublin, Ireland, June 2009 (with S. La Torre, and P. Madhusudan).
- [7] **An Infinite Automaton Characterization of Double Exponential Time.** *In Proc. 17th EACSL Annual Conference on Computer Science Logic (CSL'08)*, Bertinoro, Italy, September 2008 (with S. La Torre, and P. Madhusudan).
- [8] **Context-bounded Analysis of Concurrent Queue Systems.** *In Proc. 14th International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS'08)*, volume 4963 of LNCS, pages 299-314, Budapest, Hungary, March - April 2008 (with S. La Torre, and P. Madhusudan).
- [9] **A Robust Class of Context-Sensitive Languages.** *In Proc. 22nd IEEE Symp. on Logic in Computer Science (LICS'07)*, pages 161-170, IEEE, Wroclaw, Poland, July 2007 (with S. La Torre, and P. Madhusudan).
- [10] **On the Complexity of LTL Model-Checking of Recursive State Machines.** *In Proc. 34th International Colloquium on Automata, Languages and Programming (ICALP'07)*, volume 4596 of LNCS, pages 937-948, Wroclaw, Poland, July 2007 (with S. La Torre).
- [11] **Verification of Succinct Hierarchical State Machines.** *1st International Conference on Language and Automata Theory and Applications (LATA'07)*, Tarragona, Spain, 29 March–4 April 2007 (with S. La Torre, M. Napoli, and M. Parente).
- [12] **Improvements for Truthful Mechanisms with Verifiable One-Parameter Selfish Agents.** *In Proc. 3rd Workshop on Approximation and Online Algorithms (WAOA'05)*, volume 3879 of LNCS, pages 147-160, Palma de Mallorca, Mallorca, Balear Islands, Spain, October 2005 (with A. Ferrante, F. Sorrentino, and C. Ventre).
- [13] **A Linear Time Algorithm for the Minimum Weighted Feedback Vertex Set on Diamonds.** *Workshop on Graphs and Combinatorial Optimization (CTW'04)*, Dipartimento di Elettronica ed Informazione, Politecnico di Milano, Vila Vigoni, Italy, 31 May–2 June 2004, (with F. Carrabs, R. Cerulli, and M. Gentili)
- [14] **Hierarchical and Recursive State Machines with Context-Dependent Properties.** *In Proc. 30th International Colloquium on Automata, Languages and Programming (ICALP'03)*, volume 2719 of LNCS, pages 776-789, Eindhoven, The Netherlands, 30 June – 4 July, 2003 (with S. La Torre, M. Napoli, and M. Parente).

April 2009