

Roberta Terruggia

Name Roberta Terruggia
Date of birth August 01, 1981
Citizenship Italian
Address via Piave 38 Novara
Email roberta.terruggia@mf.n.unipmn.it
Telephone(s) 0321 403645 Mobile: 333 3473839
Web page <http://people.unipmn.it/rterrugg/>

Position and Education

RECORD OF EMPLOYMENT

February 2012 – present

Temporary research assistant at the Department of Computer Science of the University of Piemonte Orientale working on “Modelli per la valutazione di affidabilità e prestazioni in sistemi critici interagenti”.

October 2011 – February 2012

Borsa di addestramento alla ricerca at the Department of Computer Science of the University of Piemonte Orientale

March 2011 – October 2011

Borsa di addestramento alla ricerca at the Department of Computer Science of the University of Piemonte Orientale

February 2010 – September 2010

Temporary research assistant at the Department of Computer Science of the University of Piemonte Orientale working on “Studio dell'affidabilità di reti con riferimento a reti di sensori Wireless”.

2009

Fixed term contract at University of Piemonte Orientale for tutor activity

2008

Fixed term contract at University of Piemonte Orientale for tutor activity

2007

Fixed term contract at University of Piemonte Orientale for tutor activity (art.2 D.M.198 del 23 10 2003)

2006

Fixed term contract at Department of Computer Science University of Piemonte Orientale

EDUCATION

- Ph.D. in Computer Science at University of Turin, February 2010.
(Title: *Reliability analysis of probabilistic networks*
Advisor: A. Bobbio
Reviewer: S. K. Chaturvedi
Reviewer: M. Scarpa)

- M.Sc. in Computer Science. April 2006. Grade: 110/110.
(Thesis title: *Rappresentazione e analisi della connettività e affidabilità di reti mediante BDD*, Advisor A. Bobbio)
- B.Sc. in Computer Science. December 2003. Grade: 110/110 cum laude.
(Thesis title: *Implementazione di percorsi formativi in formazione a distanza con metodologia e-learning*, Advisor L. Saitta)
- High school diploma from ITC Mossotti Novara. 1999. Grade: 85/100.

VISITING EXPERIENCES

- Visiting researcher/scholar at Iowa State University Ames IA (USA) (January 2009 - April 2009).

SCHOLARSHIPS

- Ph.D Scholarship from MIUR (January 2007 - December 2009).
- Stage at MEMC Electronic Materials (June 1999 - July 1999)
- Stage at Novara Europa (June 2003 - July 2003)

Teaching activity

A.A. 2011-2012

Laboratorio di Informatica (Teacher) - Corso di laurea in Scienza dei -Materiali - chimica - Facoltà di Scienze MFN

Abilità informatiche e telematiche (Teacher) - Corso di laurea in Servizio Sociale - Facoltà di Scienze Politiche .

Programmazione 1: Attività di supporto alla didattica - Corso di laurea in Informatica - Facoltà di Scienze MFN

A.A. 2010-2011

Programmazione 1: Attività di supporto alla didattica per i moduli di riallineamento e relativo tutoraggio (Regione Piemonte - Direttiva Alta Formazione) - Corso di laurea in Informatica - Facoltà di Scienze MFN .

A.A. 2009-2010

Architettura degli elaboratori 2: Laboratorio (Lab.Tutor) - Corso di laurea in Informatica - Facoltà di Scienze MFN

A.A. 2008-2009

Architettura degli elaboratori 2: Laboratorio (Teacher) - Corso di laurea in Informatica - Facoltà di Scienze MFN

2009

Fixed term contract at University of Piemonte Orientale for undergraduate student tutor activity

2008

Fixed term contract at University of Piemonte Orientale for undergraduate student tutor activity

2007

Fixed term contract at University of Piemonte Orientale for undergraduate student tutor activity (art.2 D.M.198 del 23 10 2003)

2006

ECDL course(*Teacher*) - ITC Mossotti Novara -.

Professional Activities

NATIONAL AND INTERNATIONAL RESEARCH PROJECTS

Roberta Terruggia contributed actively in the following research projects:

- *Stochastic models for the quantitative evaluation of reliability and on-line adaptive steering of wireless sensor networks*, PRIN (local project leader: prof. A.Bobbio)
- *CRESCO: Centro computazionale di RicErca sui Sistemi Complessi*, NATIONAL PROJECT (local project leader: prof. A. Bobbio)
- *CRUTIAL - CRitical Utility InfrastructurAL resilience*, PROJECT CO-FUNDED BY THE EUROPEAN COMMISSION WITHIN THE SIXTH FRAMEWORK PROGRAMME (2002-2006) (local project leader: prof. A. Bobbio)

Talks and Tutorials

PRESENTATIONS IN INTERNATIONAL CONFERENCES

- **Temporal Network Reliability in Perturbed Scenarios: Application to a SCADA System** IEEE Annual Reliability and Maintainability Symposium RAMS 2012 Reno Nevada USA January 23-26, 2012
- **A new symbolic approach for network reliability analysis** Workshop on Informatica Quantitativa 2011 June 27-29 2011 Lipari
- **Reliability analysis of multi-source multi-sink critical interacting systems** . In 3rd IFAC Workshop on Dependable Control of Discrete Systems (DCDS11), June 15-17 2011 Saarbrucken Germany.
- **QoS Analysis of Weighted Multi-state Probabilistic Networks via Decision Diagrams**, In:International Conference on Computer Safety, Reliability and Security SAFECOMP 2010, 14 - 17 September 2010, Vienna, Austria
- **Reliability and QoS in weighted networks using Algebraic Decision Diagrams** IEEE-RAMS 2009 Fort Worth, TX USA January 26-29, 2009
- **Vulnerability analysis of Complex Networks: Software tools for the evaluation of sthochastic and deterministic indicators of interconnected networks** Conferenza Nazionale Italian e-Science 2008, Napoli, May 27-29 2008

- **Network Reliability Analysis via BDD** The 37th Annual IEEE/IFIP International Conference on Dependable Systems and Networks DSN07. Edinburgh, UK June 25 - June 28, 2007
- **Binary decision diagrams in network reliability analysis - DCDS07.**
1st IFAC Workshop on Dependable Control of Discrete Systems. Paris - France June 13-15, 2007

Complete publication list

PUBLICATION LIST

REFEREED INTERNATIONAL JOURNALS

- JR.1. A. Bobbio, G. Bonanni, E. Ciancamerla, R. Clemente, A. Iacomini, M. Minichino, A. Scarlatti, R. Terruggia and E. Zendri "Unavailability of critical SCADA communication links interconnecting a power grid and a Telco network" *Journal of Reliability Engineering & System Safety* Vol. 95, no. 12, (2010), pp. 1345-1357 (ISSN: 0951-8320) [doi: <http://dx.doi.org/10.1016/j.jres.2010.06.011>]
- JR.2. R. Terruggia, A. Bobbio. "QoS Analysis of Weighted Multi-state Probabilistic Networks via Decision Diagrams", In: SAFECOMP 2010, E. Schoitsch Ed., Springer Verlag - LNCS, Vol 6351, 41-54, 2010 [doi: http://dx.doi.org/10.1007/978-3-642-15651-5_4]
- JR.3. A. Bobbio, R. Terruggia, A. Boellis, E. Ciancamerla, M. Minichino "A Tool for Network Reliability Analysis". In: *The 26th International Conference on Computer Safety, Reliability and Security September 2007*, Nuremberg, Germany LECTURE NOTES IN COMPUTER SCIENCE, vol. 4680/2007, pp. 417-422 ISSN: 0302-9743. Springer-Verlag Berlin Heidelberg 2007 [doi: http://dx.doi.org/10.1007/978-3-640-75101-4_39]

REFEREED INTERNATIONAL CONFERENCES

- IC.1. M. Beccuti, A. Bobbio, G. Franceschinis and R. Terruggia "A new symbolic approach for network reliability analysis". *Proceedings of 42nd Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2012)*, Boston, Massachusetts, USA, 25-28 June, 2012.
- IC.2. R. Terruggia, A. Bobbio, A. Bonaventura, E. Ciancamerla, D. Lefevre, M. Minichino. "Temporal Network Reliability in Perturbed Scenarios: Application to a SCADA System". *IEEE Annual Reliability and Maintainability Symposium RAMS 2012*.
- IC.3. A. Bobbio, E. Ciancamerla, Di Blasi, A. Iacomini, F. Mari, I. Melatti, M. Minichino, A. Scarlatti, E. Tronci, R. Terruggia and E. Zendri. "Risk analysis via heterogeneous models of SCADA interconnecting Power Grids and Telco Networks", In: *4th International Conference on Risks and Security of Internet and Systems (CRISIS09)*, 90-97, 2009 [doi: <http://dx.doi.org/10.1109/CRISIS.2009.5411974>]
- IC.4. G. Bonanni and E. Ciancamerla and M. Minichino and R. Clemente and A. Iacomini and A. Scarlatti and E. Zendri and R. Terruggia "Exploiting stochastic indicators of interdependent infrastructures: the service availability of interconnected networks" in *Proceedings of the ESREL 2008 Safety, Reliability and Risk Analysis: Theory, Methods and Applications, volume 3*, 2009. (ISSN: 978-0-415-48513-5)
- IC.5. A. Bobbio, R. Terruggia. "Reliability and Quality of Service in weighted probabilistic networks using algebraic decision diagrams". In: *Proceedings IEEE Annual Reliability and Maintainability Symposium RAMS 2009*, pages 19-24, Fort Worth, TX, 2009. [doi: <http://dx.doi.org/10.1109/RAMS.2009.4914643>]
- IC.6. G. Bonanni and E. Ciancamerla and M. Minichino and R. Clemente and A. Iacomini and A. Scarlatti and E. Zendri and A. Bobbio and R. Terruggia, "Availability and QoS Analysis of Interconnected Networks". *5th International Service Availability Symposium, ISAS 2008*, Tokyo Japan 19-21 May 2008
- IC.7. A. Bobbio, R. Terruggia, A. Boellis, E. Ciancamerla, M. Minichino "Evaluating network reliability versus topology by means of BDD algorithms". *9th International Probabilistic Safety Assessment and Management Conference* Hong Kong - China 18-23 May 2008
- IC.8. R. Terruggia, "Network Reliability Analysis via BDD," *Supplemental Volume of the Int. Conference on Dependable Systems and Networks, DSN2007*, Edinburgh, UK IEEE Computer Society, June 2007.

REFEREED NATIONAL CONFERENCES

- NC.1. M. Minichino, A. Bobbio, R. Terruggia, E. Tronci, E. Ciancamerla, S. Di Blasi "Vulnerability analysis of Complex Networks: Software tools for the evaluation of stochastic and deterministic indicators of interconnected networks" *Conferenza Nazionale Italian e-Science 2008*, Napoli, May 27-29 2008

WORKSHOPS

- WS.1. M. Beccuti, S. Donatelli, G. Franceschinis, R. Terruggia A new symbolic approach for network reliability analysis *Workshop on Informatica Quantitativa 2011* Lipari, June 27-29 2011
- WS.2. A. Bobbio, R. Terruggia, E. Ciancamerla, and M. Minichino. Reliability analysis of multi-source multi-sink critical interacting systems. In *3rd IFAC Workshop on Dependable Control of Discrete Systems (DCDS11)*, pages 129134. Saarbrücken June 15-17 2011.

- WS.3. A. Bobbio, R. Terruggia. **"Binary decision diagrams in network reliability analysis."** *In: Proceedings of 1st IFAC Workshop on Dependable Control of Discrete Systems (DCDS07)*, pp 57-62, Paris, June 2007
[doi: <http://dx.doi.org/10.3182/20070613-3-FR-4909.00036>]
- WS.4. A. Bobbio, C. Ferraris, R. Terruggia. **"New challenges in network reliability analysis."** *In: Proceedings of International Workshop on Complex Network and Infrastructure Protection - CNIP06* , pp. 554-564, Rome, March, 2006.

TECHNICAL REPORTS

- TR.1. M. Beccuti, S. Donatelli, G. Franceschinis, R. Terruggia **A new symbolic approach for network reliability analysis** Technical Report TR-INF-2011-06-02-UNIPMN, Dipartimento di Informatica Universita' del Piemonte Orientale
- TR.2. A. Bobbio, R. Terruggia **Reliability and QoS Analysis of the Italian GARR network** Technical Report TR-INF-2008-06-04-UNIPMN, Dipartimento di Informatica Universita' del Piemonte Orientale
- TR.3. A. Bobbio, C. Ferraris, R. Terruggia **New challenges in network reliability analysis** Technical Report TR-INF-2006-11-04-UNIPMN, Dipartimento di Informatica Universita' del Piemonte Orientale

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali".