

# Curriculum Vitæ et studiorum

## Paolo Baldan

MARCH 15, 2009

### GENERAL DATA

Born: DOLO (VENEZIA), APRIL, 14 1969.  
Address: VENEZIA (VE), Via B. Marcello 9, c.a.p. 30171,  
tel. +39-328-6430892.  
Citizenship ITALIAN.  
Current Position: ASSOCIATE PROFESSOR  
at the Department of Pure and Applied Mathematics  
of the University of Padova.

### EDUCATION

**1994** MsC cum laude in Computer Science at the University of Udine, with a thesis entitled *A fixed point theorem for the solution of domain equations in a category of trees* (supervisors: Prof. Furio Honsell, Dr. Fabio Alessi).

**2000** PhD in Computer Science at the University of Pisa, with a thesis entitled *Modelling Concurrent Computation: from Contextual Petri Nets to Graph Grammars* (supervisors: Prof. Ugo Montanari, Prof. Andrea Corradini).

**2000-2001** PostDoc Researcher at the Computer Science Department of the University of Pisa.

**2001 – 2006** Assistant professor at at the Computer Science Department of the University “Ca’ Foscari” of Venice.

**2006 – today** Associate professor at the Department of Pure and Applied Mathematics of the University of Padova.

#### ◇ Attended Schools

- *Advanced School on Typed Lambda Calculus and Applications.* CISM, Udine (Italy), 20 – 30 September, 1994.

- *Seconda Scuola Nazionale dei Dottorati di Informatica delle Facoltà di Scienze*. Certosa di Pontignano - Siena (Italy), 26 May – 5 June, 1996.
- *HCM Typed Lambda-calculus thematic workshop on Denotational Semantics*. Certosa di Pontignano - Siena (Italy), 7 – 10 April, 1997.
- *11<sup>th</sup> International Summer School Marktoberdorf on Computational Logic*. Marktoberdorf (Germany), 29 July – 10 August, 1997.
- *European School on Graph Transformation*. Bremen, March 2 – 7, 1998.
- *13th International School for Computer Science Researchers on Foundations of Wide Area Network Programming*. Lipari (Italy), 1 – 14 July, 2001.

## TEACHING

**(1998 – 1999), (1999 – 2000)**

University of Pisa. Course on:

- *Foundations of Computer Science: Semantics* (assistant)

**(2000 – 2001)**

University of Pisa. Courses on:

- *Programming Laboratory I* (assistant)
- *Programming Laboratory II* (assistant)
- *Ricerca Operativa: Organizzazione e Gestione Aziendale* (assistant)

**(2001 – 2002)**

University of Pisa. Course on:

- *Programming Laboratory I* (assistant)

University Ca' Foscari of Venice. Courses on

- *Computing System Architecture B* (assistant)
- *Operating System Laboratory* (assistant).

**(2002 – 2003) e (2003 – 2004)**

University Ca' Foscari of Venice. Courses on

- *Operating Systems B*
- *Operating System Laboratory*.

**(2004 – 2005) e (2005 – 2006)**

University Ca' Foscari of Venice. Courses on

- *Operating System Laboratory*
- *Mathematical Logic*

(2006 – 2007)

- *Mathematical Logic*, at the University Ca' Foscari of Venice
- *Databases*, at the University of Padova.

(2007 – 2008)

University of Padova. Courses on

- *Databases*
- *Advanced algorithms*
- *Formal methods in concurrency*

(2008 – 2009)

University of Padova. Courses on

- *Databases*
- *Computability*
- *Formal methods in concurrency*

## PARTICIPATION TO PROGRAM AND ORGANISATION COMMITTEES

I have been serving in the program committee of several international workshops and conferences:

- Local organisation of the *1st Workshop of the MIUR Project CoMeta*, Venice, December 19 – 21, 2002.
- Program committee of *GT-VC 2005 (Graph Transformation for Verification and Concurrency)* (affiliated to CONCUR'05).
- Program committee of *GT-VMT 2006 (5th International Workshop on Graph Transformation and Visual Modeling Techniques)*.
- Program committee of *ICGT 2006 (International Conference on Graph Transformation)*.
- Organiser of the Workshop *PNGT 2006 (2nd Workshop on Petri Nets and Graph Transformation)* (affiliated to ICGT 2006).
- Program committee of *SMBF 2006 (Brazilian Symposium on Formal Methods)*.
- Program committee of *GT-VC 2006 (Graph Transformation for Verification and Concurrency)* (affiliated to CONCUR'06).
- Steering committee of the *3rd Workshop on the Rewriting Calculus*, 2006.
- Program committee of *GT-VMT 2007 (6th International Workshop on Graph Transformation and Visual Modeling Techniques)*.
- Program committee of *GT-VC 2007 (Graph Transformation for Verification and Concurrency)* (affiliated to CONCUR'07).

- Program committee of *GT-VMT 2008 (7th International Workshop on Graph Transformation and Visual Modeling Techniques)*.
- Program committee of *ICGT 2008 (International Conference on Graph Transformation)*.
- Organiser of the Workshop *PNGT 2008 (2nd Workshop on Petri Nets and Graph Transformation)* (affiliato a ICGT 2008).
- Program committee of *GT-VMT 2009 (8th International Workshop on Graph Transformation and Visual Modeling Techniques)*.

## REVIEWING ACTIVITY

I have been serving as a reviewer for many international conferences and journals:

### 1. *International Conferences*

AMAST, ACM GIS, AGT, CALCO, CMSB, CONCUR, Coordination, CSL, CSFW, EXPRESS, ESSL, ETAPS, FMSE, FSTTCS, GT-VMT, ICALP, ICATPN, ICGT, ICLP, ICTCS, LICS, MFCS, PaCT, PPDP, RTA, SBMF, TAGT, WADT, WOOD, WRLA, WS-FM

### 2. *International Journals*

“*Computer Languages, Systems & Structures*”, “*Fundamenta Informaticæ*”, “*IEEE Transactions on Computer*”, “*Information Processing Letters*”, “*Mathematical Structures in Computer Science*”, “*Software and System Modeling*”, “*Theoretical Computer Science*”.

## RESEARCH ACTIVITY

### ◇ **Research Interests**

Generally speaking, I am interested in *programming languages and their semantics*, with special attention to the *concurrent languages*.

I have been studying *metric spaces* as semantic domains. Techniques for the solution of *metric domain equations*. Relation between the metric approach to the semantics and the classical approach based on partial orders. *Computational models* and *partializations* of metric and topological spaces.

More recently I have been focussing on formalisms for the specification of *distributed an concurrent systems*, ranging from *Petri nets* (and their generalisations), to *graph transformation systems* and *process calculi*. More specifically, I am interested in:

- Foundational aspects related to the development of *truly concurrent* semantics for such formalisms (in a categorical framework and based, e.g., on traces, processes, unfoldings and event structures).

- *Analysis techniques* for concurrent and distributed systems, relying on their truly concurrent semantics, including *logics* for expressing behavioural properties of the modelled systems and verification techniques for such logics.

- Symbolic techniques for the analysis of open-ended systems, based on the generalisation of bisimulation and trace semantics to open processes.

### ◇ Awards

- EATCS “Best Theoretical Paper” award for the paper “Approximating the Behaviour of Graph Transformation Systems”, presented at the *1<sup>st</sup> International Conference on Graph Transformation*, Barcelona (Spain), 2002.
- EATCS “Best Theoretical Paper” award for the paper “Graph Transactions as proProcesses”, presented at the *3<sup>rd</sup> International Conference on Graph Transformation*, Natal (Brasil), 2006.

### ◇ Visits

2000 (20 Jun - 20 Jul) Research Fellow at the Computer Science Department of the Technische Universität Berlin, under the supervision of Prof. H. Ehrig.

2003 (9 Oct - 11 Nov) Computer Science Department of the Universidade Federal do Rio Grande do Sul, for a collaboration with Prof. L. Ribeiro.

2004 (30 Gen - 4 Feb) IRISA - INRIA, Rennes, for a collaboration with Prof. Stefan Haar.

(22 - 25 Feb) LORIA, Université Nancy 1, for a collaboration with Prof. C. Kirchner and H. Cirstea, and Dr. Clara Bertolissi.

(12 Jul - 10 Aug) Computer Science Department of the Technische Universität Berlin, for a collaboration with Prof. H. Ehrig.

(22 - 25 Nov) LORIA, Université Nancy 1, for a collaboration with Prof. C. Kirchner and H. Cirstea, and Dr. Clara Bertolissi.

(5 Dic - 26 Dic) Computer Science Department of “Pontificia Universidade Catholica do Rio Grande do Sul”, for a collaboration with prof. L. Ribeiro and Prof. F. Dotti.

2005 (14 Jul - 14 Aug) Computer Science Department of Technische Universität Berlin, for a collaboration with prof. H. Ehrig, in the context of the european project *SeGraVis*.

(19 - 25 Sep) Computer Science Department of Technische Universität Stuttgart, for a collaboration with Dr. B. König.

(26 - 29 Oct) LORIA, Université Nancy 1, for a collaboration with Prof. C. Kirchner and H. Cirstea and for participating to the PhD commission of Clara Bertolissi.

2006 (9 - 16 Jun) Mathematics and Computer Science Department of the University of Balearic Islads, in the context of the project Socrates-Erasmus.

(26 Jun - 1 Jul) Computer Science Department of Technische Universität Duisburg-Essen, for a collaboration with Dr. B. König.

(15 Jul - 15 Aug) Computer Science Department of Technische Universität Berlin, for a collaboration with prof. H. Ehrig, in the context of the european project *SeGraVis*.

2007 (3 - 7 Dic) Computer Science Department of Technische Universität Duisburg-Essen, for a collaboration with Dr. B. König.

2008 (9 - 13 Dic) Computer Science Department of Technische Universität Duisburg-Essen, for a collaboration with Dr. B. König.

## ◇ Participation to National and International Projects

### International Projects

- EU Project MASK (MATHEMATICAL STRUCTURES IN CONCURRENCY). 1994-1995.
- EU Project LAMBDA CALCUL TYPÉ. 1997-1998.
- EC TMR Project GETGRATS (GENERAL THEORY OF GRAPHS TRANSFORMATIONS). 1997-2000.
- IST Programme on FET-GC AGILE (ARCHITECTURES FOR MOBILITY). 2002-2005.
- IST Programme on FET-GC MYTHS (MODELS AND TYPES FOR SECURITY IN MOBILE DISTRIBUTED SYSTEMS).
- CNR/CNPq Project IQ-MOBILE II (IMPROVING THE QUALITY OF OPEN SYSTEMS WITH CODE MOBILITY THROUGH RIGOROUS DEVELOPMENT). 2002-2004.
- EC RTN Project SEGRAVIS (SEMANTIC AND SYNTACTIC INTEGRATION OF VISUAL MODELING TECHNIQUES). 2003-2006
- Bilateral Italian/German project: *Models based on Graph Transformation Systems: Analysis and Verification*, CRUI/ DAAD Programma Vigoni, 2006 (Coordinator).

### National Projects

- MURST Project *Tecniche Formali per la Specifica, l'Analisi, la Verifica, la Sintesi e la Trasformazione di Sistemi Software*, 2000–2001.
- MURST Project *TOSCa (Tipi, Ordine Superiore e Concorrenza (Types, Higher Order and Concurrency))*, 2001-2002.
- MIUR Project *CoMeta (Computational Metamodels)*, 2003–2004.
- MIUR Project *ART (Analisi di sistemi di Riduzione mediante sistemi di Transizione)*, 2005-2006 (Local Coordinator).
- Project *Analysis, Verification and abstract Interpretation of Models for concurrency (AVIAMO)*, 2009-2010 (Coordinator).

# PAPERS

## ◇ International Journals

1. F. Alessi, P. Baldan, G. Bellè. “A Fixed Point Theorem in a Category of Compact Metric Spaces”. *Theoretical Computer Science* 146(1-2), 1995, pp. 311-320.
2. F. Alessi, P. Baldan. “A Characterization of Distance between 1-Bounded Compact Ultrametric Spaces through a Universal Space”. *Theoretical Computer Science* 193(1-2), 1998, pp. 113-127.
3. P. Baldan, G. Ghelli, A. Raffaetà. “Basic Theory of F-Bounded Quantification”. *Information and Computation* 153 (1), 1999, pp. 173-237. .
4. P. Baldan, A. Corradini, U. Montanari, “Contextual Petri Nets, Asymmetric Event Structures and Processes”. *Information and computation* 171 (1), 2001, pp. 1–49.
5. F. Alessi, P. Baldan, F. Honsell, “A Category of Compositional Domain-Models for Separable Stone Spaces”. *Theoretical Computer Science* 290 (1), 2003, pp.599 – 635.
6. P. Baldan, N. Busi, A. Corradini, G. M. Pinna, “Domain and Event Structure Semantics for Petri Nets with Read and Inhibitor Arcs”. *Theoretical Computer Science* 323 (1-3) pp. 129–189, 2004.
7. P. Baldan, A. Corradini, H. Ehrig, R. Heckel, “Compositional Semantics for Open Petri Nets based on Deterministic Processes”. *Mathematical Structures in Computer Science* 15, 2005, pp. 1–35.
8. P. Baldan, A. Corradini, U. Montanari, L. Ribeiro “Unfolding Semantics of Graph Transformation” *Information and Computation* 205 (2007), pp. 733-782.
9. C. Bertolissi, P. Baldan, H. Cirstea, C. Kirchner “A rewriting calculus for cyclic higher-order term graphs” *Mathematical Structures in Computer Science*, 17(3), pp. 363-406, 2007.
10. P. Baldan, R. Bruni, A. Bracciali “A Semantic Framework for Open Processes” *Theoretical Computer Science*. To appear.

## ◇ Proceedings of International Conferences

1. F. Alessi, P. Baldan, G. Bellè, J.J.M.M. Rutten. “Functorial and Non-Functorial Solution of Metric Domain Equations”. *Proceedings of the 11th MFPS*. S. Brookes, M. Main, A. Melton, M. Mislove eds., ENTCS Volume 1, 1995, 12 pp.
2. F. Alessi, P. Baldan and F. Honsell. “Partializing Stone Spaces Using SFP Domains”. *TAPSOFT '97 Conference Proceedings*, M. Bidoit and M. Dauchet eds., Springer LNCS vol. 1214, 1997, pp. 478-489.
3. P. Baldan, A. Corradini, U. Montanari. “An Event Structure Semantics for P/T Contextual Nets: Asymmetric Event Structures”. *FoSSaCS '98 Conference Proceedings*, M. Nivat, eds., Springer LNCS vol. 1378, 1998, pp. 63-80.

4. P. Baldan, A. Corradini, U. Montanari. “Concatenable Graph Processes: Relating Processes and Derivation Traces”. *ICALP '98 Conference Proceedings*, K. Larsen, S. Skyum and G. Winskel eds., Springer LNCS vol. 1443, 1998, pp. 283-295.
5. P. Baldan, A. Corradini, U. Montanari. “Unfolding and Event Structure Semantics for Graph Grammars”. *FoSSaCS '99 Conference Proceedings*, Thomas, W. eds., Springer LNCS vol. 1578, 1999, pp. 73–89.
6. P. Baldan, A. Corradini, U. Montanari. “Unfolding of DPO Graph Grammars is a Coreflection”. *TAGT'98 Conference Proceedings*, H. Ehrig, G. Engels, H.J. Kreowsky and G. Rozemberg eds., Springer LNCS vol. 1764, 1999, pp. 145-163.
7. P. Baldan, A. Corradini, U. Montanari. “History Preserving Bisimulation for Contextual Nets”. *WADT'99 Conference Proceedings*, D. Bert and C. Choppy eds., Springer LNCS vol. 1827, 2000, pp. 291-310.
8. P. Baldan, N. Busi, A. Corradini, G.M. Pinna. “Functorial Concurrent Semantics for Petri Nets with Read and Inhibitor Arcs”, *CONCUR'00 Conference Proceedings*, Palamidessi, C. ed., Springer LNCS vol. 1877, 2000, pp. 442-457.
9. P. Baldan, A. Corradini, H. Ehrig, R. Heckel “Compositional Modeling of Reactive Systems Using Open Nets”, *CONCUR'01 Conference Proceedings*, K.G. Larsen and M. Nielsen eds. Springer LNCS vol. 2151, pp. 502-508.
10. P. Baldan, A. Corradini, B. König “A Static Analysis Technique for Graph Transformation Systems” *CONCUR'01 Conference Proceedings*, K.G. Larsen and M. Nielsen eds. Springer LNCS, vol. 2151, pp. 381-395.
11. P. Baldan “Concurrency for graph grammars (in a Petri net shell)” *Electronic Notes in Theoretical Computer Science*, 51 , M. Bauderon and A. Corradini, eds., ENTCS Volume 51, 2002, 18 pp. Elsevier Science.
12. P. Baldan, A. Corradini, B. König “Static analysis of distributed systems with mobility specified by graph grammars—A case study” , *Proceedings of IDPT '02* (Sixth International Conference on Integrated Design & Process Technology), H. Ehrig, B. Krämer, and A. Ertas, editors. Society for Design and Process Science, 2002, 8 pp.
13. P. Baldan, R. Bruni, A. Bracciali “Bisimulation by Unification” *AMAST '02 Conference Proceedings*, H. Kirchner and C. Ringeissen, eds. Springer LNCS, vol. 2422, pp. 254–270.
14. P. Baldan, B. König “Approximating the Behaviour of Graph Transformation Systems” *ICGT'02 Conference Proceedings*, A. Corradini, H. Ehrig, H.-J. Kreowski, G. Rozemberg eds. Springer LNCS, vol. 2505, pp. 14–30.
15. P. Baldan, A. Corradini, U. Montanari, L. Ribeiro “Coreflective Concurrent Semantics for Single-Pushout Graph Grammars” *WADT'02 Conference Proceedings*, M. Wirsing, D. Pattinson and R. Hennicker eds., Springer LNCS, vol. 2755, 2003, pp. 165–184.

16. P. Baldan, R. Bruni, U. Montanari “Pre-nets, read arcs and unfolding: a functorial presentation” *WADT’02 Conference Proceedings*, M. Wirsing, D. Pattinson and R. Hennicker eds., Springer LNCS vol. 2755, 2003, pp. 145–164.
17. P. Baldan, B. König, B. König “A Logic for Analyzing Abstractions of Graph Transformation Systems” *SAS’03 Conference Proceedings*, R. Cousot ed., Springer LNCS vol. 2694, 2003, pp. 255–272.
18. P. Baldan, A. Corradini, B. König, B. König “Verifying a Behavioural Logic for Graph Transformation Systems” *CoMeta’03 Conference Proceedings*, F. Honsell, M. Lenisa, M. Miculan ed., ENTCS, 2004, 19 pp., Elsevier Science.
19. P. Baldan, A. Corradini, B. König “Verifying Finite-State Graph Grammars: an Unfolding-Based Approach”. *CONCUR’04 Conference Proceedings*, P. Gardner and N. Yoshida, eds. Springer LNCS, vol. 3170, 2004, pp. 83–98.
20. P. Baldan, B. König, I. Stürmer, “Generating Test Cases for Code Generators by Unfolding Graph Transformation Systems”. *ICGT’04 Conference Proceedings*, H. Ehrig, G. Engels, F. Parisi-Presicce and G. Rozenberg eds. Springer LNCS, vol. 3256, 2004, pp. 194–209.
21. C. Bertolissi, P. Baldan, H. Cirstea, C. Kirchner. “A Rewriting calculus for cyclic higher order graphs”. *TERMGRAPH’04 Conference Proceedings*, M. Fernández ed., ENTCS Volume 127(5), pp. 21-41 (2005), Elsevier Science.
22. P. Baldan, A. Corradini, U. Montanari. “Relating SPO and DPO graph rewriting with Petri nets having read, inhibitor and reset arcs”. *PNGT’04 Conference Proceedings*, H. Ehrig, J. Padberg, G. Rozenberg, eds., ENTCS 127(2), pp. 5-28 (2005), Elsevier Science.
23. P. Baldan, A. Corradini, J. Esparza, T. Heindel, B. König, V. Kozioura “Verifying Red-Black Trees” *Proceedings of COSMICA’05, First international workshop on the verification of COncurrent Systems with dynamIC Allocated Heaps*, D. Distefano, P. O’Hearn, R. Iosif eds.
24. P. Baldan, A. Corradini, T. Heindel, B. König, P. Sobocinski “Processes for Adhesive Rewriting Systems” *FoSSaCS’06 Conference Proceedings*, L. Aceto and A. Ingólfsdóttir eds., Springer LNCS vol. 3921, pp. 202 - 216 (2006)
25. P. Baldan, S. Haar, B. König “Distributed Unfolding of Petri Nets” *FoSSaCS’06 Conference Proceedings*, L. Aceto and A. Ingólfsdóttir eds., Springer LNCS vol. 3921, pp. 126 - 141 (2006).
26. P. Baldan, A. Corradini, L. Foss, F. Gadducci “Graph Transactions as Processes” *ICGT’06 Conference Proceedings*, A. Corradini, H. Ehrig, U. Montanari, L. Ribeiro and G. Rozenberg eds., Springer LNCS vol. 4178, pp. 199 - 214 (2006).
27. P. Baldan, B. König, H. Ehrig “Composition and Decomposition of DPO Transformations with Borrowed Context” *ICGT’06 Conference Proceedings*, A. Corradini, H. Ehrig, U. Montanari, L. Ribeiro and G. Rozenberg eds., Springer LNCS vol. 4178, pp. 153 - 167 (2006).

28. P. Baldan, F. Gadducci, U. Montanari “Concurrent Rewriting for Graphs with Equivalences” *CONCUR’06 Conference Proceedings*, C. Baier and H. Hermanns eds., Springer LNCS vol. 4137, 2006, pp. 279-294 (2006).
29. P. Baldan, A. Corradini, F.L. Dotti, L. Foss, F. Gadducci, L. Ribeiro “Towards a Notion of Transaction in Graph Rewriting” *GT-VMT’06 Conference Proceedings*, R. Bruni and D. Varro eds., To appear in ENTCS Volume 127(2),
30. P. Baldan, A. Corradini, A. Lluch Lafuente, B. König “A Temporal Graph Logic for Verification of Graph Transformation Systems” *WADT’06 Conference Proceedings*, J. Fiadeiro ed., Springer LNCS vol. 4409, 2007, pp. 1 - 20.
31. P. Baldan, R. Bruni, A. Bracciali, L. Brodo “Deducing Interactions in Partially Unspecified Biological Systems” *Algebraic Biology’07 Conference Proceedings*, H. Anai, K. Horimoto, and T. Kutsia, eds., Springer LNCS vol. 4545, 2007, pp. 262-276.
32. P. Baldan, F. Gadducci, U. Montanari “Modelling Calculi with Name Mobility using Graphs with Equivalences” *Termgraph’06 Conference Proceedings*, I. Mackie eds., ENTCS Volume 176, pp. 85-97 (2007).
33. P. Baldan, A. Corradini, H. Ehrig, R. Heckel, B. König “Bisimilarity and Behaviour-Preserving Reconfigurations of Open Petri Nets” *CALCO’07 Conference Proceedings*, U. Montanari and T. Mossakowski eds. Springer LNCS, vol. 4624, 2007, pp. 126-142.
34. C. Bertolissi, P. Baldan, H. Cirstea, C. Kirchner “Towards a sharing strategy for the graph rewriting calculus” *WRS’07 Conference Proceedings*, J. Giesl ed. To appear.

#### ◇ **Book Chapters**

1. P. Baldan, A. Corradini, H. Ehrig, M. Loewe, U. Montanari, F. Rossi “Concurrent semantics of algebraic graph transformations”. Capitolo 3 del libro *Handbook of Graph Grammars and Computing by Graph Transformation, Vol. III: Concurrency, Parallellism, and Distribution*, World Scientific, 1999, pp. 109 - 187.
2. P. Baldan, A. Corradini, U. Montanari “Bisimulation Equivalences for Graph Grammars” In *Formal and Natural Computing*, W. Brauer, H. Ehrig, J. Karhumäki, A. Salomaa eds., Springer LNCS vol. 2300, 2002, pp. 158-190.
3. H. Ehrig, K. Hoffmann, J. Padberg, P. Baldan, R. Heckel “High-Level Net Processes” In *Formal and Natural Computing*, W. Brauer, H. Ehrig, J. Karhumäki, A. Salomaa eds. Springer LNCS vol. 2300, 2002, pp. 191-219.
4. P. Baldan, P. Mancarella, A. Raffaetà, F. Turini “MuTACL P: A Language for Temporal Reasoning with Multiple Theories”. In *Computational Logic: Logic Programming and Beyond*, A.C. Kakas and F. Sadri eds. Springer LNAI vol. 2408, 2002, pp. 1-40.
5. P. Baldan, R. Bruni, A. Bracciali “Symbolic Equivalences for Open Systems”. Apparirà in *Global Computing 2004*. Springer LNCS, 2004.

6. P. Baldan, A. Corradini, F. Gadducci “Specifying and Verifying UML Activity Diagrams via Graph Transformation”. Apparirà in *Global Computing 2004*. Springer LNCS, 2004.
7. P. Baldan, A. Corradini “On the Concurrent Semantics of Algebraic Graph Grammars”. In *Formal Methods in Software and Systems Modeling*, H.-J. Kreowski, U. Montanari, F. Orejas, et al., eds. Springer LNCS vol. 3393, 2005, pp. 3–22.

#### ◇ **Theses and other papers**

1. P. Baldan. “Un Teorema di Punto Fisso per la Soluzione di Equazioni di Dominio in una Categoria di Alberi”. Tesi di laurea. Università di Udine, 1994.
2. P. Baldan, P. Mancarella, “Note di Semantica Assiomatica”, Dispensa per il Corso di Programmazione I presso l’Università di Pisa, 1997.
3. P. Baldan, A. Corradini, U. Montanari, “An Unfolding Semantics for DPO Graph Transformation Systems”. Technical Report tr-ri-98-201 Computer Science and Mathematics Department, Università di Paderborn, 1998.
4. P. Baldan, A. Corradini, U. Montanari “Contextual Petri Nets, Asymmetric Event Structures and Processes” Technical Report TR-99-18. Department of Computer Science. University of Pisa.
5. P. Baldan “Modelling Concurrent Computation: from Contextual Petri Nets to Graph Grammars”. Tesi di dottorato. TD-1/00 Dipartimento di Informatica, Università di Pisa, 2000.
6. P. Baldan, N. Busi, A. Corradini, G.M. Pinna, “Domain and Event Structure Semantics for Petri Nets with Read and Inhibitor Arcs”. Technical Report TR-05-00 Dipartimento di Informatica, Università di Pisa, 2000.
7. F. Alessi, P. Baldan, F. Honsell, “A category of Compositional Domain-Models for Separable Stone Spaces”. Technical Report TR-14-00. Dipartimento di Informatica, Università di Pisa, 2000.
8. P. Baldan, A. Corradini, H. Ehrig, R. Heckel “Compositional semantics of open Petri nets based on deterministic processes” Technical Report TR-01-21. Department of Computer Science, University of Pisa.
9. P. Baldan, P. Mancarella, A. Raffaetà, F. Turini, “MuTACL P: A language for temporal reasoning with multiple theories”. Technical Report TR-01-22. Dipartimento di Informatica, Università di Pisa, 2001.
10. P. Baldan, R. Bruni, A. Bracciali “Symbolic Equivalences for Open Systems” Technical Report TR-03-16. Dipartimento di Informatica, Università di Pisa, 2003.
11. L. Andrade, P. Baldan, H. Baumeister, R. Bruni, A. Corradini, R. De Nicola, J.L. Fiadeiro, F. Gadducci, S. Gnesi, P. Hoffman, N. Koch, P. Kosiuczenko, A. Lapadula, D. Latella, A. Lopes, M. Loreti, M. Massink, F. Mazzanti, U. Montanari, C. Oliveira, R. Pugliese, A. Tarlecki, M. Wermelinger, M. Wirsing, A. Zawlocki “AGILE: Software Architecture for Mobility” *WADT’02 Conference Proceedings*, M. Wirsing, D. Pattinson and R. Hennicker eds., Springer LNCS vol. 2755, 2003, pp. 1-33.

12. P. Baldan, A. Corradini, B. König “Verifying Finite-State Graph Grammars: an Unfolding-Based Approach” Technical Report CS-2004-10. Department of Computer Science, University Ca’ Foscari of Venice.
13. P. Baldan, B. König, A. Rensink “Graph Grammar Verification through Abstraction” *Dagstuhl Seminar 04241 on Graph Transformations and Process Algebras for Modeling Distributed and Mobile Systems*, B. Koenig, U. Montanari, P. Gardner, eds.
14. P. Baldan, A. Corradini, U. Montanari, L. Ribeiro “Concurrency and Nondeterminism in Graph Rewriting: From Graph Grammars to Asymmetric Event Structures and Backwards” Technical Report CS-2005-2. Department of Computer Science, University Ca’ Foscari of Venice.
15. P. Baldan, S. Haar, B. König “Distributed Unfolding of Petri Nets” Technical Report CS-2006-1. Department of Computer Science, University Ca’ Foscari of Venice.
16. P. Baldan, A. Corradini H. Ehrig, R. Heckel, B. König “Bisimilarity and Behaviour Preserving Reconfigurations of Open petri Nets” Technical Report CS-2006-9. Department of Computer Science, University Ca’ Foscari of Venice.
17. P. Baldan, R. Bruni, A. Bracciali “A Semantic Framework for Open Processes” Technical Report TR-07-09. Department of Computer Science, University of Pisa.

VENICE, MARCH 15, 2009

(Paolo Baldan)