

Andrea Marin

ASSISTANT PROFESSOR UNIVERSITÀ CA' FOSCARI VENEZIA

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Resume of Andrea Marin's Research

Andrea Marin's research interests are mainly focused on the analysis of computer and telecommunication systems by means of formal methods. Specifically, he has worked in the field of performance and reliability analysis and developed quantitative methods for assessing the quality of service and the reliability of complex systems. His major theoretical contributions are in the field of product-form theory which was originally developed in the domain of queueing theory and has successfully been extended to include stochastic Petri nets, Markovian process algebras and stochastic automata networks. Recently, he has worked on a new notion of time-reversibility that allows the efficient stationary analysis of a larger class of models with respect to the state of the art. He has applied his results for the analysis of ad-hoc wireless networks, systems with fork-join operations, distributed systems with load balancing. He has numerous international collaborations with important International research centres: Imperial College, Oxford University, University of Edinburgh, University St. Quintin of Paris, University of Calgary. According to Scopus (2018-01-05), his h-Index is 11 and his papers have been cited 364 times. According to Google Scholar (2018-01-05), his h-index is 12 and his papers have been cited 486 times.

Education

Università Ca' Foscari Venezia

Venice, Italy

PHD IN COMPUTER SCIENCE

Jan. 2006 - Mar. 2009

- Main topics: stochastic models, performance evaluation of computer and telecommunication systems, reliability analysis
- The program concluded with the writing of a doctoral thesis entitled *On the relations among product-form stochastic models* supervised by Prof. Simonetta Balsamo and revised by prof. Gianfranco Balbo (Università di Torino) and prof. Ramon Puigjaner (UIB)

Università di Bologna

Bertinoro, Italy

SUMMER SCHOOL: SCHOOL OF FORMAL METHODS (SFM)

May 2007

- Main topics: formalisms for the quantitative analysis of computer systems

SSIS Veneto

Venice, Italy

SSIS - SCHOOL FOR THE NATIONAL LICENSE TO SECONDARY SCHOOL TEACHING

2002 - 2004

- National license in Mathematics (80/80) and Computer Science (80/80)

Università Ca' Foscari Venezia

Venice, Italy

LAUREA IN INFORMATICA (5 YEARS)

1995 - 2002

- Graduated summa cum laude (110/110 e lode)
- During the period 1995-2002 he spent 10 month in the compulsory community service

Università Ca' Foscari Venezia

Venice, Italy

LAUREA IN INFORMATICA (3 YEARS)

1995 - 2001

- Graduated summa cum laude (110/110 e lode)

ITIS C. Zuccante

Venice, Italy

HIGH SCHOOL DIPLOMA (5 YEARS)

1999 - 1995

- He obtained the diploma *Perito tecnico industriale in informatica* with a final grade of 60/60

Experience

Università Ca' Foscari Venezia - Department of Environmental Sciences, Informatics, Statistics

Venice, Italy

ASSISTANT PROFESSOR

Dec. 2011 - Today

- Research activity
- Teaching activity

Università Ca' Foscari Venezia - Department of Environmental Sciences, Informatics, Statistics

Venice, Italy

POST-DOC RESEARCHER

2011

- Research activity
- Teaching activity

Italian Ministry of Education MIUR

Venice, Italy

PROFESSOR IN THE HIGH SCHOOL

2001 - 2010

- Teaching activity

Dieffe - ESF

Venice, Italy

TEACHING FOR EUROPEAN SOCIAL FUND

2004

- Teaching activity on PLC programming

Projects and fundraising

ADAPT - Accessible Data for Accessible Proto-Types in Social Sector

Italian

MEMBER

2015-2017

- The project has been funded by MIUR, SCN_00447

FFABR - Fondo per il finanziamento delle attività base di ricerca

Italian

NATIONAL RESEARCH FUNDINGS

2017

- The research funds have been granted by MIUR on competitive base

Green computing via frequency scaling

Università Ca' Foscari Venezia

PRINCIPAL INVESTIGATOR

2017 - Today

- The research project (IRIDE) supports the mobility of researchers and has been funded by Università Ca' Foscari Venezia
- The project is joint with the University of Calgary, Canada

CINA - Compositionality, Interaction, Negotiation and Autonomy

Italian

MEMBER

2013 - 2016

- The project has been funded by MIUR with the competitive call PRIN

Oltre la demografia differenziale: un approccio sindemico allo studio della mortalità urbana

Università Ca' Foscari Venezia

MEMBER

2014 - 2016

- The research project has been funded by Università Ca' Foscari Venezia

Analysis of synchronizing systems

Università Ca' Foscari Venezia

PRINCIPAL INVESTIGATOR

2013 - 2014

- The research project (IRIDE) supports the mobility of researchers and has been funded by Università Ca' Foscari Venezia
- The project is joint with the Imperial College London, UK

Università Ca' Foscari Venezia - Department of Environmental Sciences, Informatics, Statistics

Venice, Italy

COURSE OF PROGRAMMING (BSc) 6/12 CFUs

2009 - Today

- Evaluation of the students for the years 2016/2017. The evaluation is obtained via anonymous questionnaire. The maximum grade is 4, between parentheses we report the average of scientific disciplines in Ca' Foscari.
 - Is the teacher clear? 3.64 (3.23)
 - Does the teacher motivate the students? 3.56 (3.22)
 - Are you overall satisfied of the course? 3.42 (3.13)

Università Ca' Foscari Venezia - Department of Environmental Sciences, Informatics, Statistics

Venice, Italy

COURSE OF SIMULATION AND NETWORK PERFORMANCE (BSc) 6 CFUs

2015 - Today

- Evaluation of the students for the years 2016/2017. The evaluation is obtained via anonymous questionnaire. The maximum grade is 4, between parentheses we report the average of scientific disciplines in Ca' Foscari.
 - Is the teacher clear? 3.7 (3.23)
 - Does the teacher motivate the students? 3.7 (3.22)
 - Are you overall satisfied of the course? 3.7 (3.13)

Università Ca' Foscari Venezia - Department of Environmental Sciences, Informatics, Statistics

Venice, Italy

COURSE OF SOFTWARE PERFORMANCE AND SCALABILITY (MSc) 6 CFUs

2016 - Today

- Evaluation of the students for the years 2016/2017. The evaluation is obtained via anonymous questionnaire. The maximum grade is 4, between parentheses we report the average of scientific disciplines in Ca' Foscari.
 - Is the teacher clear? 4 (3.23)
 - Does the teacher motivate the students? 4 (3.22)
 - Are you overall satisfied of the course? 3.63 (3.13)

Università Ca' Foscari Venezia - Department of Economics

Venice, Italy

COURSE OF INFORMATION SYSTEMS FOR TOURISM (MSc) 6 CFUs

2012 - 2017

- Evaluation of the students for the years 2016/2017. The evaluation is obtained via anonymous questionnaire. The maximum grade is 4, between parentheses we report the average of economics disciplines in Ca' Foscari.
 - Is the teacher clear? 3.21 (3.19)
 - Does the teacher motivate the students? 3.07 (3.18)
 - Are you overall satisfied of the course? 3.09 (3.05)

Università Ca' Foscari Venezia - Department of Computer Science

Venice, Italy

COURSE OF DISTRIBUTED SYSTEMS (MSc) 3/9 CFUs

2009

Università Ca' Foscari Venezia - Department of Computer Science

Venice, Italy

COURSE OF PROBABILITY AND STATISTICS (BSc) 2/6 CFUs

2009-2011

Università Ca' Foscari Venezia

Venice, Italy

SUPERVISION OF MASTER THESIS

2012-Today

- Andrea Marin has supervised more than 10 final projects at master level for the degrees in *Informatica - Computer Science* and *Sviluppo interculturale dei sistemi turistici* at the departments of Environmental Sciences, Informatics and Statistics and Economics of the Università Ca' Foscari Venezia

Honors & Awards

2016	Best paper award - A. Marin, S. Rossi: Fair workload distribution for multi-server systems with pulling strategies , Int. Conf. Valuetools - International Conference on Performance Evaluation Methodologies and Tools	Taormina, Italy
2012	Candidate best paper award - A. Marin, S. Rota Bulò, S. Balsamo: A numerical algorithm for the decomposition of cooperating structured Markov processes , IEEE 20th Int. Symp. on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS	Washington DC, USA
2011	Best paper award - L. Gallina, S. Hamadou, A. Marin and Sabina Rossi: A Framework for Throughput and Energy Efficiency in Mobile ad Hoc Networks , Int. Conf. IFIP/Wireless Days	Niagara Falls, Canada
2011	Best paper award - A. Marin, S. Rota Bulò: Explicit solutions for queues with Hypo-exponential service time and applications to product-form analysis , Int. Conf. Valuetools - International Conference on Performance Evaluation Methodologies and Tools	Paris, France
2010	Best paper award - S. Balsamo, A. Marin: Product-form solutions for models with joint-state dependent transition rates , Int. Conf. ASMTA - Analytical & Stochastic Modelling Techniques & Applications	Cardiff, UK
2009	Best paper award - S. Balsamo, A. Marin: Composition of product-form Generalized Stochastic Petri Nets: a modular approach , Int. Conf. ESM - European Simulation Multiconference	Leicester, UK

Visits to foreign research centres

2017	University of Calgary, Canada , The visit was part of the IRIDE project entitled <i>green computing via frequency scaling</i> and took place from 2017/06/26 to 2017/08/06	Calgary, Canada
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Tutorials and invited talks

INVITED TALKS

University of Calgary

Calgary, Canada

INVITED SEMINAR

Jul. 2017

- Invited seminar on the topic *Power control on saturated fork-join queues*

Imperial College London

London, UK

INVITED SEMINAR

Jan. 2016

- Invited seminar on the topic *Energy harvesting wireless networks*

Symposium Honoring Erol Gelenbe at the International Symposium on Computer and Information Sciences (ISCIS)

London, UK

INVITED TALK

Sep. 2015

- Presentation entitled *Product-form in G-Networks*

Joint workshop on compositional modelling and analysis of quantitative systems

Edinburgh, UK

KEYNOTE TALK

Sept. 2012

- Presentation entitled *Compositional model specifications and analyses via product-forms*

Université Paul Sabatier

Toulouse, France

INVITED SEMINAR

Jan. 2012

- Invited seminar on the topic *Stochastic models for the quantitative evaluation of the energy consumption*

TUTORIALS

ACM/SPEC International Conference on Performance Engineering

Karlsruhe, Germany

TUTORIAL SPEAKER

Mar. 2011

- The tutorial entitled *Performance Engineering with Product-Form Models: Efficient Solutions and Applications* was prepared with Simonetta Balsamo (Università Ca' Foscari Venezia, IT)

International Conference IFIP/PERFORMANCE

Namur, Belgium

TUTORIAL SPEAKER

Nov. 2010

- The tutorial entitled *Stochastic models in product form: the (E)RCAT methodology* was prepared with Maria Grazia Vigliotti (Imperial College London, UK)

- The tutorial entitled *From system to components: constructive methods for product-form solutions* was prepared with Maria Grazia Vigliotti (Imperial College London, UK)

Presentations of papers at International conferences

Valuetools 2016

Taormina, Italy

PRESENTATION OF PAPER

Oct. 2016

- A. Marin, S. Rossi: *Fair workload distribution for multi-server systems with pulling strategies*
- This paper received the best paper award of the conference

QEST 2016

Quebec City, Canada

PRESENTATION OF PAPER

Aug. 2016

- A. Marin, S. Rossi: *Dynamic Control of the Join-Queue Lengths in Saturated Fork-Join Stations*

IEEE/CCNC 2016

Las Vegas, USA

PRESENTATION OF PAPER

Jan. 2016

- A. Bujjari, A. Marin, C. Palazzi, S. Rossi: *Performance evaluation of AQM techniques with heterogeneous traffic*

Valuetools 2015

Berlin, Germany

PRESENTATION OF PAPERS

Dec. 2015

- G. Dei Rossi, M. Iacono, A. Marin: *Priority-based bandwidth allocation in wireless sensor networks*
- A. Marin, S. Rossi: *Priority-based bandwidth allocation in wireless sensor networks*

IEEE/MASCOTS 2015

Atlanta, USA

PRESENTATION OF PAPERS

Oct. 2015

- F. Cavallin, A. Marin, S. Rossi: *A Product-Form Model for the Analysis of Systems with Aging Objects*
- S. Balsamo, A. Marin, I. Stojic: *Perfect Sampling in Stochastic Petri Nets Using Decision Diagrams*

IEEE/MASCOTS 2015

Atlanta, USA

PRESENTATION OF PAPERS

Oct. 2015

- F. Cavallin, A. Marin, S. Rossi: *A Product-Form Model for the Analysis of Systems with Aging Objects*
- S. Balsamo, A. Marin, I. Stojic: *Perfect Sampling in Stochastic Petri Nets Using Decision Diagrams*

ASMTA 2015

Varna, Bulgaria

PRESENTATION OF PAPER

May 2015

- E. Gelenbe, A. Marin: *Interconnected Wireless Sensors with Energy Harvesting*

Valuetools 2014

Bratislava, Slovakia

PRESENTATION OF PAPER

Dec. 2014

- A. Marin, S. Rossi: *On Discrete Time Reversibility modulo State Renaming and its Applications*

IEEE/MASCOTS 2014

Paris, France

PRESENTATION OF PAPER

Nov. 2014

- A. Marin, S. Rossi: *On the relations between lumpability and reversibility*

Valuetools 2013

Turin, Italy

PRESENTATION OF PAPER

Dec. 2013

- S. Balsamo, G. Dei Rossi, A. Marin: *Queueing networks and conditional product-forms*

IEEE/MASCOTS 2013

San Francisco, USA

PRESENTATION OF PAPER

Aug. 2013

- A. Marin, S. Rossi: *Autoreversibility: exploiting symmetries in Markov chains*

ACM/MSWim 2012

Paphos, Cyprus

PRESENTATION OF PAPER

Oct. 2012

- L. Gallina, A. Marin, S. Rossi: *Evaluating resistance to jamming and casual interception in mobile wireless networks*

IEEE/MASCOTS 2013

Washington DC, USA

PRESENTATION OF PAPER

Aug. 2012

- A. Marin, S. Rota Bulò, S. Balsamo: *A numerical algorithm for the decomposition of cooperating structured Markov processes*
- The paper has been considered among the 3 best contributions at the conference

ASMTA 2012

Grenoble, France

PRESENTATION OF PAPER

Jun. 2012

- S. Balsamo, G. Dei Rossi, A. Marin: *Lumping and Reversed Processes in Cooperating Automata*

Valuetools 2011

Paris, France

PRESENTATION OF PAPER

May 2012

- A. Marin, S. Rota Bulò: *Explicit solutions for queues with Hypo-exponential service time and applications to product-form analysis*
- The paper has received the best paper award of the conference

IFIP/Wireless Days 2010

Venice, Italy

PRESENTATION OF PAPER

Oct. 2010

- S. Balsamo, A. Marin: *Separable equilibrium distributions for systems with unreliable wireless links*

EPEW 2010

Venice, Italy

PRESENTATION OF PAPER

Sep. 2010

- S. Balsamo, G. Dei Rossi, A. Marin: *A numerical algorithm for the solution of product-form models with infinite state spaces*

ASMTA 2010

Cardiff, UK

PRESENTATION OF PAPER

Jun. 2010

- S. Balsamo, A. Marin: *Product-form solutions for models with joint-state dependent transition rates*
- The paper has received the best paper award of the conference

ESM 2009

Leicester, UK

PRESENTATION OF PAPER

Oct. 2009

- S. Balsamo, A. Marin: *Composition of product-form Generalized Stochastic Petri Nets: a modular approach*
- The paper has received the best paper award of the conference

IEEE/MASCOTS 2009

London, UK

PRESENTATION OF PAPER

Sep. 2009

- A. Marin, S. Rota Bulò: *A general algorithm to compute the steady-state solution of product-form cooperating Markov chains*

ASMTA 2009

Madrid, Spain

PRESENTATION OF PAPER

Jun. 2009

- S. Balsamo, A. Marin: *On the Characterization of Product-Form Multiclass Queueing Models with Probabilistic Disciplines*

ESM 2008

Le Havre, France

PRESENTATION OF PAPER

Oct. 2008

- S. Balsamo, A. Marin: *From BCMP Queueing Networks to Generalized Stochastic Petri Nets: An Algorithm and an Equivalence Definition*

ASMTA 2007

Prague, Czech Republic

PRESENTATION OF PAPER

Oct. 2008

- S. Balsamo, A. Marin: *On representing multiclass M/M/k queues by generalized stochastic Petri nets*

Technical Program Committees (TPCs)

2018	Member of the TPC , IFIP Wireless Days	Dubai, UAE
2018	Member of the TPC , QEST	Beijing, China
2018	Member of the TPC , Simultech	Porto, Portugal
2018	Member of the TPC , ACM ICPE	Berlin, Germany
2018	Member of the TPC , Bioinformatics	Funchal, Portugal
2017	Member of the TPC , QEST	Berlin, Germany
2017	Member of the TPC , EPEW	Berlin, Germany
2017	Member of the TPC , IEEE MASCOTS	Calgary, Canada
2017	Member of the TPC , HiPMoS	Budapest, Hungary
2017	Member of the TPC , ACM ICPE	L'Aquila, Italy
2017	Member of the TPC , Bioinformatics	Porto, Portugal
2017	Member of the TPC , Practical Applications of Stochastic Modelling	Berlin, Germany
2017	Member of the TPC , ASMTA	Newcastle-upon-Tyne, UK
2016	Member of the TPC , Valuetools	Taormina, Italy
2016	Member of the TPC , ASMTA	Cardiff, UK
2016	Member of the TPC , IEEE MASCOTS	London, UK
2016	Member of the TPC , Practical Applications of Stochastic Modelling	Munster, Germany
2016	Member of the TPC , ACM ICPE	Delft, The Netherlands
2016	Member of the TPC , Simultech	Lisbon, Portugal
2016	Member of the TPC , Bioinformatics	Rome, Italy
2015	Member of the TPC , IEEE MASCOTS	Atlanta, USA
2015	Member of the TPC , EPEW	Madrid, Spain
2015	Member of the TPC , ACM ICPE	Austin, USA
2015	Member of the TPC , ASMTA	Albena, Bulgaria
2015	Member of the TPC , Valuetools	Berlin, Germany
2014	Member of the TPC , EPEW	Florence, Italy
2014	Member of the TPC , IFIP Performance	Turin, Italy
2014	Member of the TPC , Practical Applications of Stochastic Modelling	Newcastle, UK
2014	Member of the TPC , ASMTA	Budapest, Hungary
2014	Member of the TPC , IEEE ISCAIE	Penang, Malaysia
2014	Member of the TPC , Valuetools	Bratislava, Slovakia
2013	Member of the TPC , ASMTA	Ghent, Belgium
2013	Member of the TPC , IFIP Wireless Days	Valencia, Spain
2013	Member of the TPC , Valuetools	Turin, Italy
2013	Member of the TPC , IEEE/IFIP HPCC	Zhangjiajie, China
2012	Member of the TPC , ASMTA	Grenoble, France
2012	Member of the TPC , Wireless Days	Venice, Italy
2012	Member of the TPC , Practical Applications of Stochastic Modelling	London, UK
2010	Member of the TPC , ASMTA	Cardiff, UK

Organizing and Steering Committees

2018-Today **Elected member of the Steering Committee** , Valuetools

*European
Conference*

2016-2019 **Elected member of the Steering Committee** , QEST

*Quebec City,
Canada*

2018 **Tutorial Co-Chair**, ACM ICPE

Berlin, Germany

2017 **General Co-Chair**, Valuetools

Venice, Italy

2017 **Special Track Co-Chair**, IEEE CCNC

Las Vegas, USA

2016 **Special Track Co-Chair**, IEEE CCNC

Las Vegas, USA

2013 **General Chair**, EPEW

Venice, Italy

2011 **Program Chair**, ASMTA

Venice, Italy

2011 **Program Chair**, Industrial Simulation Conference

Venice, Italy

Participation to editorial boards

Performance Evaluation

Elsevier

GUEST EDITOR

2018

- Giuliano Casale, Andrea Marin, Dorina Petriu, Sabina Rossi (Eds.) Special issue for Valuetools 2017, Venice, Italy
- The special issue is currently in the phase of reviewing the contributions

EAI Transactions on Ambient Systems

EAI

EDITORIAL BOARD

Since 2017

- Track: Ambient System's Performance Evaluation and Models

Lecture Notes in Computer Science (LNCS) 8168

Springer

GUEST EDITOR

2013

- Maria Simonetta Balsamo, William J. Knottenbelt, Andrea Marin (Eds.). Computer Performance Engineering - 10th European Workshop, EPEW 2013, Venice, Italy, September 16-17, 2013. Proceedings.
- ISSN: 0302-9743, ISBN: 978-642-40724-6

Lecture Notes in Computer Science (LNCS) 6751

Springer

GUEST EDITOR

2011

- Khalid Al-Begain, Simonetta Balsamo, Dieter Fiems, Andrea Marin (Eds.). Analytical and Stochastic Modeling Techniques and Applications. 18th International Conference, ASMTA 2011, Venice, Italy, June 2011. Proceedings.
- ISSN: 0302-9743, ISBN: 978-642-21712-8

EUROSIS Proceedings

Eurosis

GUEST EDITOR

2011

- Simonetta Balsamo, Andrea Marin (Eds.). Proceedings of EUROSIS Int. Conference on Industrial Simulation, ISC 2011, Venice, Italy, June 2011.
- ISBN: 978-90-77381-63-2

Reviewer for scientific journals

Andrea Marin is a reviewer for several well-reputed scientific journals among which: Performance Evaluation, IEEE Trans. on Parallel and Distributed Systems, The Computer Journal, IET Software, Journal of Computational Science, Journal of Sensors and Actuator Networks, Int. J. of Management Science and Engineering Management, Annals of Operations Research, International J. of distributed sensor networks, IEEE Transactions on Network and Service Management, International Journal of Parallel, Emergent and Distributed Systems, European J. of Operational Research, Stochastic Models, Journal of Software and Systems Modeling, Applied Mathematics and Computation, Concurrency and Computation: Practice and Experience.

Other activities

Univeristy services

Venice, Italy

UNIVERSITÀ CA' FOSCARI VENEZIA

2012 - Today

- Since 2012: member of the Teaching Committee of the BSc and MSc programs in Computer Science
- Since 2012: delegate from the Teaching Committee for the promotion of the BSc programs in the high schools
- Since 2014: member of the Research Committee of the Department
- Since 2013: member of the board of the doctoral program in Computer Science

Direction of the ACADIA Research Centre

Venice, Italy

UNIVERSITÀ CA' FOSCARI VENEZIA

2012 - Today

- The ACADIA Research Centre (AdvanCes in Autonomous, DIstributed and pervAsive systems) brings together researchers in the fields of performance evaluation, program verification and cyber security with the aim of stimulating new collaborations. It is active in the fund raising activity by participating to International and National calls.

Scientific Supervision Activities

Venice, Italy

UNIVERSITÀ CA' FOSCARI VENEZIA

2012 - Today

- Since 2012 Andrea Marin has co-supervised some PhD students: Lucia Gallina (joint with Sabina Rossi), Ivan Stojic (joint with Simonetta Balsamo)
- He is currently supervising Mohsin Jafri and co-supervising Filippo Cavallin

Member of external boards for the PhD evaluation

VARIOUS

2013 - Today

- 2016: Member of the PhD examination board for the evaluation of Weikun Wang at the Imperial College London, UK
- 2016: Member of the PhD examination board for the evaluation of Robbe Block at the University of Antwerp, Belgium
- 2013: Member of the PhD examination board for the evaluation of Alessio Angiu at the University of Turin, Italy

1. A. Marin, S. Rossi, D. Burato, A. Sina, M. Sottana: A product-form model for the performance evaluation of a bandwidth allocation strategy in WSNs, *ACM Transactions on Modeling and Computer Simulation*, (In press)
2. A. Marin, S. Balsamo, J.M. Fourenau, LB-networks: A model for dynamic load balancing in queueing networks, *Performance Evaluation* 115, pp. 38–53, 2017
3. A. Marin, S. Rossi, Power control in saturated fork-join queueing systems, *Performance Evaluation* 116, pp. 101–118, 2017
4. A. Marin, S. Rossi, Fair workload distribution for multi-server systems with pulling strategies, 2017, *Performance Evaluation*, 113, pp. 26–41, 2017
5. A. Marin, S. Rossi, On the relations between Markov chain lumpability and reversibility, *Acta Informatica*, 54(5) pp. 447–485, 2017
6. A. Bujjari, A. Marin, C.E. Palazzi, S. Rossi, Analysis of ECN/RED and SAP-LAW with simultaneous TCP and UDP traffic, *Computer Networks*, 108, 160–170, 2016
7. L. Gallina, A. Marin, S. Rossi, Connectivity and Energy-aware Preorders for Mobile Ad-Hoc Networks, *Telecommunication Systems*, 63(2) pp. 307–333, 2016
8. S. Balsamo, G. Dei Rossi, A. Marin, Lumping and reversed processes in cooperating automata, *Annals of Oper. Res.*, 239(2), pp. 695–722, 2016
9. A. Marin, Product-form in G-networks, *Probability in the Engineering and Informational Sciences* 30(3), pp. 345–360, 2016
10. S. Balsamo, G. Dei Rossi, A. Marin, Applying BCMP multi-class queueing networks for the performance evaluation of hierarchical and modular software systems, *International Journal of Computer Aided Engineering and Technology (IJCAET)*, pp. 145–157, 2015
11. A. Marin, S. Rota Bulò, Explicit solutions for queues with Hypo- or Hyper-exponential service time distribution and application to product-form approximation, *Performance Evaluation* 81, pp. 1–19, 2014
12. P.G. Harrison, A. Marin, Product-Forms in Multi-Way Synchronizations, *The Computer Journal* 57(11), pp. 1693–1710, 2014
13. M. Bugliesi, L. Gallina, S. Hamadou, A. Marin, S. Rossi, Behavioural equivalences and interference metrics for mobile ad-hoc networks, *Performance Evaluation*, 73, pp. 41–72, 2014
14. M. Bugliesi, A. Marin, S. Rossi, Model Checking Adaptive Service Compositions, *Science of Computer Programming* 94 (P3), pp. 289–306, 2014
15. E. Barbierato, G. Dei Rossi, M. Gribaudo, M. Iacono, A. Marin, Exploiting product forms solution techniques in multiformalism modeling, *Electronic Notes in Theoretical Computer Science*, vol. 296, pp. 61–77, 2013
16. S. Balsamo, A. Marin, Seperable solutions for Markov processes in random environments, *European Journal of Operational Research*, vol. 229(2), pp. 391–403, 2013
17. A. Marin, S. Balsamo, P.G. Harrison, Analysis of Stochastic Petri Nets with Signals, *Performance Evaluation*, vol. 69(11), pp. 551–572, 2012
18. A. Marin, M.G. Vigliotti, Algorithmic product-form approximations of interacting stochastic models, *Elsevier Computer & Mathematics with Applications* 64(12), pp. 3852–3868, 2012
19. S. Balsamo, P.G. Harrison, A. Marin, Methodological Construction of Product-Form Stochastic Petri-Nets for Performance Evaluation, *Journal of Systems and Software*, vol. 85(7), pp. 1520–1539, 2012
20. S. Balsamo, P. G. Harrison, A. Marin, A unifying approach to product-forms in networks with finite capacity constraints, *ACM SIGMETRICS Performance Evaluation Review*, vol. 38(1), 2010, pp. 25–36 (Same publication of the proceedings of ACM Sigmetrics 2010)
21. P. Baldan, N. Cocco, A. Marin, M. Simeoni, Petri nets for Modeling Metabolic Pathways: A Survey, *Natural Computing: an International Journal*, vol. 9(4), pp. 955–989, 2010

1. A. Marin, S. Rossi, Aggregation and Truncation of Reversible Markov Chains Modulo State Renaming, in Proc. of Analytical and Stochastic Modelling Techniques and Applications (ASMTA) 2017, pp. 152-165
2. A. Marin, S. Rossi, Dynamic Control of the Join-Queue Lengths in Saturated Fork-Join Stations, in Proc. of Int. Conf. on Quantitative Evaluation of Systems (QEST) 2016, LNCS 9826, pp. 123-138
3. S. Balsamo, A. Marin, I. Stojic, Spnps: A Tool for Perfect Sampling in Stochastic Petri Nets, in Proc. of Int. Conf. on Quantitative Evaluation of Systems (QEST) 2016, LNCS 9826, pp. 163-166
4. A. Marin, S. Rossi, A. Bujari, C. E. Palazzi, Performance evaluation of AQM techniques with heterogeneous traffic, in Proc. of the IEEE Annual Consumer Communications & Networking Conference (IEEE CCNC) 2016, pp. 194-199
5. S. Balsamo, F. Cavallin, A. Marin, S. Rossi, Applying Reversibility Theory for the Performance Evaluation of Reversible Computations, in Proc. of Int. Conf. on Analytical and Stochastic Modelling Techniques and Applications (ASMTA) 2016, LNCS 9845, pp. 45-56
6. A. Marin, S. Rossi, Priority-based bandwidth allocation in wireless sensor networks, in Proc. of the Int. Conf. on Performance Evaluation Methodologies and Tools (Valuetools) 2015, Berlin, pp. 1-8
7. G. Dei Rossi, M. Iacono, A. Marin, Evaluating the impact of eDoS attacks to cloud facilities, in Proc. of the Int. Conf. on Performance Evaluation Methodologies and Tools (Valuetools) 2015, Berlin, pp. 1-8
8. E. Gelenbe, A. Marin, Interconnected Wireless Sensors with Energy Harvesting, in Proc. of the Int. Conf. on Analytical and Stochastic Modeling Techniques and Applications (ASMTA) 2015, LNCS 9081, pp. 87-99
9. A. Marin, S. Rossi, Quantitative Analysis of Concurrent Reversible Computations, in Proc. of Int. Conf. on Formal Modeling and Analysis of Timed Systems (FORMATS) 2015, LNCS 9268, pp. 206-221
10. S. Balsamo, A. Marin, I. Stojic, Perfect Sampling in Stochastic Petri Nets Using Decision Diagrams, in Proc. of the IEEE Symp. on Modelling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS) 2015, pp. 126-135
11. F. Cavallin, A. Marin, S. Rossi, A Product-Form Model for the Analysis of Systems with Aging Objects, in Proc. of the IEEE Symp. on Modelling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS) 2015, pp. 136-145
12. A. Marin, S. Rossi, Lumping-Based Equivalences in Markovian Automata and Applications to Product-Form Analyses, in Proc. of the 12th International Conference on Quantitative Evaluation of SysTems (QEST) 2015, LNCS 9259, pp. 160-175
13. S. Balsamo, A. Marin, I. Stojic, Deriving the performance indices in product-form stochastic Petri nets: open problems and simulation, in Proc. of the EUROIS European Simulation Multiconference (ESM) 2015, pp. 1-7
14. A. Marin, S. Rossi, On Discrete Time Reversibility modulo State Renaming and its Applications, in Proc. of the Int. Conf. on Performance Evaluation Methodologies and Tools (Valuetools) 2014, Bratislava pp. 1-8
15. A. Marin, S. Rossi, On the relations between lumpability and reversibility, in Proc. of the IEEE Symp. on Modelling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS) 2014, pp. 427-432
16. S. Balsamo, A. Marin, I. Stojic, Optimisation of servers with different quality of services in Proc. of the IEEE Symp. on Modelling, Analysis and Simulation of Computer and Telecommunication Systems, (MASCOTS) 2014, pp. 142-151
17. A. Marin, S. Rossi, Autoreversibility: exploiting symmetries in Markov chains, in Proc of the IEEE Int. Symp. on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS) 2013, pp. 151-160
18. S. Balsamo, G. Dei Rossi, A. Marin, Modelling Retrial-Upon-Conflict Systems with Product-Form Stochastic Petri Nets, in Proc. of the Int. Conf. on Analytical and Stochastic Modelling Techniques and Applications (ASMTA) 2013, LNCS 7984, pp. 52-66
19. L. Gallina, T. Han, M. Kwiatkowska, A. Marin, S. Rossi, A Process Algebraic Framework for Estimating the Energy Consumption in Ad-hoc Wireless Sensor Networks, in Proc. of the Int. Conf. on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWIM) 2013, pp. 255-262
20. J. Hillston, A. Marin, C. Piazza, S. Rossi, Contextual lumpability, in Proc. of the Int. Conf. on Performance Evaluation Methodologies and Tools (Valuetools) 2013, pp. 1-10
21. S. Balsamo, G. Dei Rossi, A. Marin, Queueing networks and conditional product-forms, in Proc. of the Int. Conf. on Performance Evaluation Methodologies and Tools (Valuetools) 2013, pp. 1-10
22. S. Balsamo, G. Dei Rossi, A. Marin, A Survey on Multi-Formalism Performance Evaluation Tools, in Proc. of the annual European Simulation and Modelling Conference (ESM) 2012, pp. 15-23
23. L. Gallina, G. Dei Rossi, A. Marin, S. Rossi, Evaluating resistance to jamming and casual interception in mobile wireless networks, in Proc. of the Int. Conf. on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWIM), pp. 151-158
24. L. Gallina, T. Han, M. Z. Kwiatkowska, A. Marin, S. Rossi, A. Spanò, Automatic energy-aware performance analysis of Mobile Ad-Hoc Networks, in Proc. of the Int. Conf. Wireless Days (WD) 2012, pp. 1-6
25. P. G. Harrison, Andrea Marin, Deriving the rate equations characterising product-form models and application to propagating synchronisations. in Proc. of the Int. Conf. on Performance Evaluation Methodologies and Tools (Valuetools) 2012, pp. 107-116
26. M. Bugliesi, L. Gallina, S. Hamadou, A. Marin, S. Rossi, Interference-sensitive Preorders for MANETs, in Proc of the Int. Conf. on Quantitative Evaluation of SysTems (QEST) 2012, pp. 189-198
27. S. Balsamo, G. Dei Rossi, A. Marin, Cooperating stochastic automata: approximate lumping an reversed process, in Proc. of the Int. Symp. on Computer and Information Sciences (ISCIS) 2012, LNEE, Springer, pp. 131-141
28. A. Marin, S. Rota Bulò, S. Balsamo, A numerical algorithm for the decomposition of cooperating structured Markov processes, in Proc. of IEEE Int. Symp. on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS) 2012, pp. 401-410
29. S. Balsamo, G. Dei Rossi, A. Marin, Lumping and Reversed Processes in Cooperating Automata in proc. of the Int. Conf. on Analytical and Stochastic Modelling Techniques and Applications (ASMTA) 2012, LNCS 7314, pp. 212-226
30. L. Gallina, S. Hamadou, A. Marin and Sabina Rossi A Framework for Throughput and Energy Efficiency in Mobile ad Hoc Networks in Proc. of the Int. Conf. IFIP Wireless Days (WD) 2011, 1-6

31. G. Dei Rossi, A. Marin A queueing model with batch arrivals for studying the impact of fragmentation in wireless protocols in Proc. of the Int. Conf. IFIP Wireless Days (WD) 2011, pp. 1–3
32. N. Anastasiou, W. Knottenbelt, A. Marin, Automatic Synchronisation Detection in Petri Net Performance Models Derived from Location Tracking Data, in Proc. of the Performance Engineering Work. (EPEW), LNCS 6977, pp. 29–41
33. P. Baldan, N. Cocco, F. De Nes, M. Llabres Segura, A. Marin, M. Simeoni, MPath2PN - Translating metabolic pathways into Petri nets, in Proc. of the Int. Work. on Biological Processes and Petri Nets (BioPPN) 2011, pp. 102–116
34. G. Dei Rossi, A. Marin, M. Rosati, S. Balsamo, A Simulation Package For an Energy-Aware Comparison of ARQ protocols, in Proc. of EUROSIS Int. Conf. on Industrial Simulation (ISC) 2011, pp. 18–25
35. L. Gallina, S. Hamadou, A. Marin, S. Rossi, A Probabilistic Energy-Aware Model for Mobile Ad-Hoc Networks, in Proc. of the Int. Conf. on Analytical and Stochastic Modelling Techniques and Applications (ASMTA) 2011, LNCS 6751, pp. 316–330
36. S. Balsamo, G. Dei Rossi, A. Marin, Optimisation of Virtual Machine Garbage Collection Policies, in Proc. of the Int. Conf. on Analytical and Stochastic Modelling Techniques and Applications (ASMTA) 2011, LNCS 6751, pp. 70–84
37. A. Marin, S. Rota Bulò, Explicit solutions for queues with Hypo-exponential service time and applications to product-form analysis, in Proc. of the Int. Conf. on Performance Evaluation Methodologies and Tools (Valuetools) 2011, pp. 1–10
38. S. Balsamo, A. Marin, Performance Engineering with Product-Form Models: Efficient Solutions and Applications, in Proc. of the ACM/SPEC Int. Conf. on Performance Engineering (ICPE) 2011, pp. 437–448
39. S. Balsamo, A. Marin, Separable equilibrium distributions for systems with unreliable wireless links, in Proc. of the Int. Cong. IFIP Wireless Days (WD) 2010, pp. 1–5
40. S. Balsamo, G. Dei Rossi, A. Marin, Applying BCMP Multi-class Queueing Networks for the Performance Evaluation of Hierarchical and Modular Software Systems, in Proc. of Int. Conf. EUROSIS European Simulation and Modelling (ESM) 2010, pp. 206–213.
41. S. Balsamo, G. Dei Rossi, A. Marin, A numerical algorithm for the solution of product-form models with infinite state spaces, in Proc. of Computer Performance Engineering Work. (EPEW) 2010, LNCS 6342, pp. 191–206
42. A. Marin, M.G. Vigliotti, On product-form approximations of cooperating stochastic models, in Proc. of the Int. Symposium on Computer Science (ISCIS) 2010, LNEE 62, pp. 65–70
43. S. Balsamo, A. Marin, Product-form solutions for models with joint-state dependent transition rates, in Proc. of the Int. Conf. on Analytical and Stochastic Modeling Techniques and Applications (ASMTA) 2010, LNCS 6148, pp. 87–101
44. S. Balsamo, P. G. Harrison, A. Marin, A unifying approach to product-forms in networks with finite capacity constraints, in Proc. of the ACM SIGMETRICS Int. Conf. on Measurement and Models (Sigmetrics) 2010, pp. 25–36 (Also appeared in the Journal Performance Evaluation review)
45. A. Marin and M.G. Vigliotti, A general result for deriving product-form solutions of Markovian models, in Proc. of the ACM/SIPEW Int. Conf. on Performance Engineering (ICPE) 2010, pp. 165–176
46. S. Balsamo and A. Marin, Composition of product-form Generalized Stochastic Petri Nets: a modular approach, in Proc. of Int. Conf. EUROSIS European Simulation and Modelling (ESM) 2009, 26–34, 2009. (Also appeared in the journal IJCAET)
47. A. Marin and S. Rota Bulò, A general algorithm to compute the steady-state solution of product-form cooperating Markov chains, in Proc. of the Annual Meeting of the IEEE Int. Symp. on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS) 2009, pp. 515–524
48. S. Balsamo and A. Marin, On the Characterization of Product-Form Multiclass Queueing Models with Probabilistic Disciplines, in Proc. Int. Conf. on Analytical and Stochastic Modelling Techniques and Applications (ASMTA) 2009, LNCS 5513, pp. 204–218
49. S. Balsamo and A. Marin, Determining product-form steady-state solutions of Generalized Stochastic Petri Nets by the analysis of the reversed process, in Proc. of the IEEE Int. Conf. on Computer Systems and Applications, pp. 808–815, 2009
50. S. Balsamo and A. Marin, From BCMP Queueing Networks to Generalized Stochastic Petri Nets: An Algorithm and an Equivalence Definition, In Proc. of the Int. Conf. EUROSIS European Simulation and Modelling Conference (ESM) 2008, pp. 447–455
51. S. Balsamo and A. Marin, Representing LCFSPR BCMP service center with Coxian service time by GSPN, in Proc. of the Int. Conf. on Performance Evaluation Methodologies and Tools (Valuetools) 2007, pp. 1–10
52. S. Balsamo and A. Marin, Queueing Networks. In “Formal Methods for Performance Evaluation”, Marco Bernardo and Jane Hillston Eds, LNCS 4486, pp. 34–82
53. S. Balsamo and A. Marin, On representing multiclass M/M/k queues by generalized stochastic Petri nets, in Proc. the Int. Conf. on Analytical and Stochastic Modelling Techniques and Applications (ASMTA) 2007, pp. 121–128

Further declarations

- Dichiaro che quanto contenuto nel presente curriculum vitae corrisponde al vero ai sensi degli articoli 46 e 47 del D.P.R. 445/2000.
- 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”.

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