

Marino Miculan

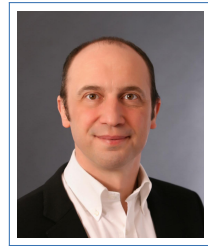
Curriculum vitae

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Education

- Jul 1992 Laurea in Computer Science, University of Udine (Italy)
- Aug 1992 Fourth European Summer School in Logic, Language and Information, University of Essex, Colchester (UK)
- Oct 1992 Advanced School on Logic and Artificial Intelligence, CISM, Udine (Italy)
- Jun 1993 Summer school *Types for proofs and programs*, Båstad (Sweden)
- Sep 1994 Summer school *Advanced School on Typed Lambda-calculus and Applications*, CISM, Udine (Italy)
- Mar 1997 PhD in Computer Science, University of Pisa (Italy)

Positions

- Mar 1997 Research Fellow at INFN (National Institute of Nuclear Physics), Trieste
- Dec 1998
- Jan 1999 Technologist at INFN, Trieste
- Jun 2000
- July 2000 Researcher in the Computer Science at the Faculty of Mathematical, Physical and Natural Sciences of the University of Udine
- Jan 2005
- Jan 2005 Associate Professor in Computer Science at the Faculty of Arts and Humanities of the University of Udine
- Sep 2008
- Oct 2008 Associate Professor in Computer Science at the Faculty of Mathematical, Physical and Natural Sciences (subsequently renamed as Department of Mathematical, Computer and Physical Sciences) of the University of Udine
- present
- Mar 2018 Qualified for the position of Full Professor in Computer Science (Italian national-level habilitation)

I have been visiting researcher at INRIA-Sophia Antipolis, IT-University (Copenhagen, Denmark), Aarhus University (Denmark), Tallinn University of Technology (Estonia), Fondazione Bruno Kessler (Trento), IMT Alti Studi (Lucca).

Main services in academic positions

- 2005–2008 Deputy Director of the Department of Mathematics and Computer Science.
- 2005–2009 Member of the Scientific Committee of the incubator Technoseed, where I have collaborated to the selection and activation of about twenty start-ups.
- 2008–present Representative of the University of Udine in the Board of Directors of National Interuniversity Consortium for Computer Science (Consorzio CINI)
- 2013–2016 Deputy Coordinator of Computer Science Courses, Department of Mathematics and Computer Science.
- 2013–2017 Member of the Parity Committee of the Department of Mathematics and Computer Science.
- 2018–2022 Head of the Web Committee of the Department of Mathematical, Computer and Physical Sciences.
- 2003–2018 Member of the Board of the PhD in Computer Science, Department of Mathematics and Computer Science
- 2019–present Member of the Board of the PhD in Computer Science, Mathematics and Physics, Dipartimento di Scienze Matematiche, Informatiche e Fisiche
- 2019–present Coordinator of Orientation and Tutoring activities, Department of Mathematical, Computer and Physical Sciences.

Publications

So far, I have produced about 90 scientific publications, divided as follows:

- about 20 papers on main international journals, such as: Computers & Security, Higher Order and Symbolic Computation (HOSC), IEEE Access, Information & Computation, J. Automated Reasoning (JAR), J. Computer and System Sciences (JCSS), J. Functional Programming (JFP), J. Logic and Algebraic Methods in Programming (JLAMP), Science of Computer Programming (SCP), Software and System Modeling (SoSyM), Studia Logica (SL), Theoretical Computer Science (TCS).
- more than 60 papers on peer-reviewed international conference proceedings, in the areas of cybersecurity, programming languages, formal methods, and theoretical computer science; among these conferences, we mention the following: ACM SAC, ACS D, CALCO, CILC, CMCS, CMSB, COORDINATION, CSL, DAIS, DLT, FACS, FOSSACS, ICGT, ICTAC, ICTCS, ITASEC, ITP, LICS, LPAR, MECBIC, MFPS, QAPL, RTA-TLCA, SECURE, SEFM, TGC, TYPES.
- editor of 4 special issues of international scientific journals (TCS, IJEG, JLAMP, LMCS).
- editor of 7 proceedings of international conferences and workshops, published on Springer Lecture Notes in Computer Science (LNCS), Elsevier Electronic Notes in Theoretical Computer Science (ENTCS), ACM Digital Library, Electronic Proceedings in Theoretical Computer Science (EPTCS).
- 1 CVE Record sul MITRE (CVE-2022-3203).

According to Google Scholar, my H-index is 22. My Erdős number is 3.

Group leadership

- 2008–2021 Head of the Udine research unit of the Italian Consortium for Computer Science (<http://www.consorzio-cini.it>). This Consortium collects almost all Italian researchers in Computer Science and Computer Engineering. The unit at the University of Udine has more than 40 participants.
- 2009–today Site leader and workpackage head of several national and international research projects. See detailed list below.

- 2013–today Founder and Head of the Laboratory of Models and Applications of Distributed Systems <http://mads.uniud.it>, University of Udine
- 2015–today Founder and Head of the Udine node of the Cybersecurity National Lab (<https://cybersecnatlab.it>). This laboratory gathers researchers, PhD and master students interested in both the theory and applications of cybersecurity.

Principal Research projects

I have participated to the following national or international research projects; in many of them I have been in charge of working groups, workpackages and large tasks.

- 1992-1995 EEC BRA n.6453, *Types for Proofs and Programs*
- 1996-1999 EU Esprit Working Group 21900 *Types for Proofs and Programs*
- 1998-2000 Italian MURST COFIN-97, *Formal techniques for the specification, analysis, verification, synthesis and transformation of software systems*
- 2000-2002 Italian MURST COFIN-99 *Types, higher order, concurrency (TOSCA)*
- 2000-2003 IST Thematic Network FP5-IST-29001 *Computer-Assisted Reasoning Based on Type Theory*
- 2002-2004 Italian MIUR COFIN-01 *Computational Metamodels (COMETA)*
- 2002-2005 EU Integrated Project FP5-IST-33477 *Dynamic Assembly, Reconfiguration and Type-checking*
- 2004-2007 EU Coordination Action FP6-IST-510996 *TYPES*
- 2006-2008 Italian MIUR PRIN 2005 project *Analysing Reduction Systems via Transition Systems (ART)*. Work package leader.
- 2009-2011 Italian MIUR PRIN 2008 project *Reduction Systems: synthesis, refinement and verification of behavioural models (SISTER)*. Site leader, Work package leader.
- 2013-2015 Italian MIUR PRIN 2010 project *Compositionality, Interaction, Negotiation, Autonomy (CINA)*. Work package leader.
- 2016-2020 EU COST Action CA15123 *The European research network on types for programming and verification (EUTYPES)*. Member of the Management Committee as Italian representative.
- 2019-ongoing Italian MIUR PRIN 2017 project *Methods and Tools for Trustworthy Smart Systems (IT MATTERS)*. Site Leader, Work package leader.
- 2023-ongoing UniUD PSA 2022 *Interdisciplinary and Interdepartmental Project about Artificial Intelligence: Leader of Work Package "AI applied to Cybersecurity"*.
- 2023-ongoing Italian NRRP project *SEcurity and Rights In the CyberSpace (SERICS)*.

Services in committees of international conference

- 2003 PC member of ACM-SIGPLAN MERλIN'03
- 2005 PC member of ACM-SIGPLAN MERλIN'05
- 2005 PC member of the national conference AICA 2005
- 2006 PC member of *Effects and Type Theory EffTT 2006*
- 2006 PC member of *Mathematically Structured Functional Programming 2006*
- 2007 Chair of the International Conference on Types for Proofs and Programs (TYPES 2007)

- 2008 PC member of *Mathematically Structured Functional Programming 2008*
- 2009 PC member of *Logical Frameworks and Meta-languages: Theory and Practice LFMTTP 2009*
- 2010-2015 member of the steering committee of the international workshop *Logical Frameworks and Meta-Languages: Theory and Practice (LFMTTP)*
- 2010 co-chair of LFMTTP 2010
- 2011 PC member of FOSSACS 2011
- 2013 Organizing Committee member of 3rd International Workshop on Bigraphs (Bigraph 2013), IT University of Copenhagen (DK)
- 2013 PC member of CALCO 2013
- 2014 co-chair of MeTTeG 2014
- 2014 PC member of 1st International Workshop on Meta Models for Process Languages (MeMo 2014)
- 2014 PC member of LFMTTP 2014
- 2015 Chair of the 2nd International Workshop on Meta Models for Process Languages (MeMo 2015)
- 2015 PC member of COORDINATION 2015
- 2015 PC member of ICTCS 2015
- 2016 PC member of CILC'16
- 2016 PC member of Special Track of the 31st ACM Symposium on Applied Computing (SAC'16)
- 2017 Co-chair of the international workshop *Logical Frameworks and Meta-Languages: Theory and Practice (LFMTTP 2017)*
- 2017 PC member of the 18th Italian Conference on Theoretical Computer Science (ICTCS 2017)
- 2017 PC member of the first Italian Conference on Cybersecurity (ITASEC 2017)
- 2017-2022 member of the steering committee of the international workshop *Logical Frameworks and Meta-Languages: Theory and Practice (LFMTTP)*
- 2018 Co-chair of the symposium *Logics, Types, and Semantics: a Journey in Theoretical Computer Science*
- 2018 PC member of the second Italian Conference on Cybersecurity (ITASEC 2018)
- 2019 PC member of the Combined 26th International Workshop on Expressiveness in Concurrency and 16th Workshop on Structural Operational Semantics (EXPRESS/SOS 2019)
- 2019 PC member of the third Italian Conference on Cybersecurity (ITASEC 2019)
- 2020 PC member of the 26th International Conference on Types for Proofs and Programs (TYPES 2020)
- 2020 PC member of the fourth Italian Conference on Cybersecurity (ITASEC 2020)
- 2021 PC member of the 5th Italian Conference on Cybersecurity (ITASEC 2021)
- 2022 PC member of the International Conference on Security for Information Technology and Communications (SecITC 2022)
- 2022 PC member of the 6th Italian Conference on Cybersecurity (ITASEC 2022)

- 2023 PC member of the 7th Italian Conference on Cybersecurity (ITASEC 2023)
- 2023 PC member of the 5th Distributed Ledger Technology Workshop (DLT 2023)
- 2023 PC member of the 14th International Workshop on Graph Computation Models (GCM 2023)

Services as (Guest) Editor

- 2001 Guest editor of the special issue 298(3) of *Theoretical Computer Science*.
- 2001 Proc. International Conference *Foundations of Software Science and Computation Structures* (FOSSACS'01), Springer-Verlag, LNCS 2030.
- 2001 Proceedings of the project COFIN-01 *TOSCA*, Electronic Notes in Theoretical Computer Science n. 62, Elsevier.
- 2003 Proc. International Workshop ACM SIGPLAN *MEchanized Reasoning about Languages with variable biNding* (MERλIN'03)
- 2008 Types for Proofs and Programs, International Conference, TYPES 2007, Revised Selected Papers. Lecture Notes in Computer Science 4941, Springer 2008.
- 2010 Proceedings 5th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice, LFMTTP 2010
- 2015 Guest editor of the special issue on “Methodologies, Technologies and Tools Enabling e-Government” of the *International Journal of Electronic Governance* (IJEG)
- 2018 Guest editor of the special issue on “Logics, Semantics and Types: Special Festschrift Issue in Honor of Furio Honsell” of the journal *Logical Methods in Computer Science* (LMCS)

Invited talks

Invited talks at conferences, workshops and other international simposia:

- 2006 Theory Days, Koke, Estonia. Talk “Behind the name: the many faces of atomic terms”
- 2007 IFIP WG 2.2, Nancy. Talk “The directed bigraphical model”
- 2007 Mathematical Theories of Abstraction, Substitution and Naming in Computer Science, Edinburgh. Talk “Bigraphical models of calculi with names”
- 2010 Theory Days, Koke, Estonia. Talk “A bigraphical framework for protein and membrane interactions”
- 2013 NII Shonan Meeting “Coinduction for computation structures and programming languages”, Japan. Talk “Weak bisimulations for LTSs weighted over semirings”
- 2014 IFIP WG 1.8 meeting “Open Problems in Concurrency”, Bertinoro. Talk “The Fellowship of the Semiring: Concerning Quantitative Bisimulations”
- 2014 MeMo Workshop, Berlin. Tutorial about Bigraphic Reactive Systems
- 2023 IFIP WG 1.8 meeting “Open Problems in Concurrency”, Bertinoro. Talk: “Modeling Collective Adaptive Systems with Attribute-based Events: Recent Trends and Open Problems”

Some recent invited talks at various universities and research institutes:

- 2018 Tallinn University of Technology: *TD³: Principles for Trustworthy Software Systems, and how to adopt them*

- 2019 DIKU, University of Copenhagen: *BiGraphical Models for Container-based systems*
- 2020 IT-University Center for Information Security and Trust (CISAT), Copenhagen: *Automated Symbolic Verification of Telegram's MTPProto 2.0.*
- 2022 University of Turin: *Composable Partial Multiparty Session Types.*
- 2022 IMT Lucca (online): *AbU: Event-driven Programming Meets Attribute-based Interaction*
- 2022 Fondazione Bruno Kessler (Trento): *BiGraphical Models for Container-based systems.*
- 2022 University of Trento: *BiGraphical Models for Container-based systems.*

Talks at conferences and symposia

I have presented regular contributions with peer review at about 30 conferences and international workshops, including: TYPES 1993, TYPES 1995, ICALP 1999, ICALP 2001, TYPES 2002, PDP 2003, MERLIN 2003, FOSSACS 2004, TYPES 2004, MERLIN 2005, FOSSACS 2005, CMSB 2006, CONCUR 2007, MFPS 2008, MeCBIC 2009, SECURE 2011, ITP 2012, TGC 2014, DAIS 2014, ICTCS/CILC 2017, ICTCS/CILC 2018, MICROSERVICES 2019, OWASP 2021, ITASEC 2022, etc.

Supervision of PhD students

- 2007–2009 Supervisor of Davide Grohmann (now Expert System Architect at Volvo, Malmö) at the PhD Program in Computer Science. Thesis title: *Multi-graph Structures as Frameworks for Distributed and Concurrent Systems*
- 2009–2012 Supervisor of Giorgio Bacci (now Associate Professor at Aalborg University, Denmark) at the PhD Program in Computer Science. Thesis title: *Generalized labelled Markov processes, coalgebraically*
- 2013–2016 Supervisor of Marco Peressotti (now Associate Professor at the University of Southern Denmark, Odense) at the PhD Program in Computer Science. Thesis title: *Coalgebraic semantics of self-referential behaviours*
- 2019–2023 Supervisor of Davide Castelnovo (now postdoc at the University of Padua) at the PhD Program in Computer Science, Mathematics and Physics.
- 2023–2025 Supervisor of Matteo Paier at the National PhD Program in Cybersecurity

Awards

- 2011 Best poster award for the work “Formal analysis of Facebook Connect single sign-on authentication protocol” presented at the 37th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2011).
- 2021 Best paper award for the work “Automated Symbolic Verification of Telegram's MTPProto 2.0” presented at the 18th International Conference on Security and Cryptography (SECURE 2021; the acceptance rate of this conference was 18%).

Development of software tools and libraries

I participated in the development of several software tools and libraries (available at <https://github.com/miculan>, <https://github.com/bigraphs>, <https://github.com/abu-lang>), including:

- PicNIC a non-interference verifier for the π -calculus [60].
- DBtk a toolkit for directed bigraphs [56].

jLibBig	a Java library for bigraphs [19, 8].
docker2ldb	a correctness verifier for the composition of Docker containers [18].
dbcchecker	a security property verifier for containers, based on bigraphs and ProVerif [1].
goabu	a Go implementation of the AbU calculus [14].
abuc	a compiler for the AbU-dsl language [10].

Publications

- [1] Andrea Altarui, Marino Miculan, and Matteo Paier. DBCChecker: a bigraph-based tool for checking security properties of container compositions. In Francesco Buc-cafurri and Elena Ferrari, editors, *Proceedings of the Seventh Italian Conference on Cyber Security, ITASEC 2023*. CEUR-WS, 2023. In press.
- [2] Marino Miculan and Nicola Vitacolonna. Automated verification of Telegram’s MTPProto 2.0 in the symbolic model. *Computers & Security*, page 103072, 2023.
- [3] Michele Pasqua and Marino Miculan. AbU: A calculus for distributed event-driven programming with attribute-based interaction. *Theoretical Computer Science*, 958:113841, 2023.
- [4] Claude Stolze, Marino Miculan, and Pietro Di Gianantonio. Composable partial multiparty session types for open systems. *Software and Systems Modeling*, 22:473–494, 2023. Published online: 28 September 2022.
- [5] Lorenzo Bazzana, Marino Miculan, and Michele Codutti. CVE-2022-3203: ORing net IAP-420(+) hidden functionality, 2022.
- [6] Davide Castelnovo, Fabio Gadducci, and Marino Miculan. A new criterion for \mathcal{M}, \mathcal{N} -adhesivity, with an application to hierarchical graphs. In *Proc. FoSSaCS*, volume 13242 of *Lecture Notes in Computer Science*, pages 205–224. Springer, 2022.
- [7] Davide Castelnovo and Marino Miculan. Fuzzy Algebraic Theories. In Florin Manea and Alex Simpson, editors, *30th EACSL Annual Conference on Computer Science Logic (CSL 2022)*, volume 216 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 13:1–13:17, Dagstuhl, Germany, 2022. Schloss Dagstuhl – Leibniz-Zentrum für Informatik.
- [8] Alessio Chiapperini, Marino Miculan, and Marco Peressotti. Computing (optimal) embeddings of directed bigraphs. *Sci. Comput. Program.*, 221:102842, 2022.
- [9] Marino Miculan and Matteo Paier. A calculus for subjective communication. In Ugo Dal Lago and Daniele Gorla, editors, *Proceedings of the 23rd Italian Conference on Theoretical Computer Science, ICTCS 2022, Rome, Italy, September 7-9, 2022*, volume 3284 of *CEUR Workshop Proceedings*, pages 148–160. CEUR-WS.org, 2022.
- [10] Michele Pasqua, Massimo Comuzzo, and Marino Miculan. The AbU language: IoT distributed programming made easy. *IEEE Access*, 10:132763–132776, 2022.
- [11] Michele Pasqua and Marino Miculan. Distributed programming of smart systems with event-condition-action rules. In Ugo Dal Lago and Daniele Gorla, editors, *Proceedings of the 23rd Italian Conference on Theoretical Computer Science*,

ICTCS 2022, Rome, Italy, September 7-9, 2022, volume 3284 of *CEUR Workshop Proceedings*, pages 201–206. CEUR-WS.org, 2022.

- [12] Davide Castelnovo and Marino Miculan. Closure hyperdoctrines. In *CALCO 2021 Conference Proceedings*, volume 211 of *LIPICs*. Dagstuhl, 2021.
- [13] Axel De Nardin, Marino Miculan, Claudio Piciarelli, and Gian Luca Foresti. A time-series classification approach to shallow web traffic de-anonymization. In Alessandro Armando and Michele Colajanni, editors, *Proceedings of the Fifth Italian Conference on Cyber Security, ITASEC 2021*, volume 2940, pages 156–165. CEUR-WS, 2021.
- [14] Marino Miculan and Michele Pasqua. A calculus for attribute-based memory updates. In Antonio Cerone and Peter Ölveczky, editors, *Proceedings of the 18th International Colloquium on Theoretical Aspects of Computing, ICTAC 2021*, volume 12819 of *Lecture Notes in Computer Science*. Springer, 2021.
- [15] Marino Miculan and Nicola Vitacolonna. Automated symbolic verification of Telegram’s MTPProto 2.0. In Sabrina De Capitani di Vimercati and Pierangela Samarati, editors, *Proceedings of the 18th International Conference on Security and Cryptography, SECRYPT 2021*, pages 185–197. SciTePress, 2021. Best Paper Award.
- [16] Michele Pasqua and Marino Miculan. On the security and safety of AbU systems. In Radu Calinescu and Corina S. Pasareanu, editors, *Software Engineering and Formal Methods (SEFM 2021)*, volume 13085, pages 178–198. Springer, 2021.
- [17] Claude Stolze, Marino Miculan, and Pietro Di Gianantonio. Composable partial multiparty session types. In *FACS 2021 Conference Proceedings*, volume 13077 of *Lecture Notes in Computer Science*. Springer, 2021.
- [18] Fabio Burco, Marino Miculan, and Marco Peressotti. Towards a formal model for composable container systems. In *Proceedings of the 35th Annual ACM Symposium on Applied Computing, SAC '20*. ACM, 2020.
- [19] Alessio Chiapperini, Marino Miculan, and Marco Peressotti. Computing embeddings of directed bigraphs. In Fabio Gadducci and Timo Kehrer, editors, *Graph Transformation - 13th International Conference, ICGT 2020*, volume 12150 of *Lecture Notes in Computer Science*, pages 38–56. Springer, 2020.
- [20] Marino Miculan and Daniel Tosone. Securing the art market with distributed public ledgers. In Franco Chiaraluce and Leonardo Mostarda, editors, *Proceedings of the 3rd Distributed Ledger Technology Workshop (DLT 2020)*, volume 2580 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2020.
- [21] Marco Bernardo and Marino Miculan. Constructive logical characterizations of bisimilarity for reactive probabilistic systems. *Theor. Comput. Sci.*, 764:80–99, 2019.
- [22] Luca Geatti, Federico Igne, and Marino Miculan. An abstract distributed middleware for transactions over heterogeneous stores. In Alessandra Cherubini, Nicoletta Sabadini, and Simone Tini, editors, *Proc. 20th Italian Conference on*

Theoretical Computer Science, ICTCS 2019, volume 2504 of *CEUR Workshop Proceedings*, pages 171–183. CEUR-WS.org, 2019.

- [23] Marino Miculan, Gian Luca Foresti, and Claudio Piciarelli. Towards user recognition by shallow web traffic inspection. In Pierpaolo Degano and Roberto Zunino, editors, *Proceedings of the Third Italian Conference on Cyber Security, Pisa, Italy, February 13-15, 2019*, volume 2315 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2019.
- [24] Thomas Hildebrandt and Marino Miculan. Guest editors' foreword. *Journal of Logical and Algebraic Methods in Programming*, 95:147, 2018.
- [25] Alessio Mansutti and Marino Miculan. Deciding hedged bisimilarity. In *Proceedings of ICTCS 2018*, volume 2243 of *CEUR Workshop Proceedings*, pages 218–229. CEUR, 2018.
- [26] Alessio Mansutti, Marino Miculan, and Marco Peressotti. Loose graph simulations. In Martina Seidl and Steffen Zschaler, editors, *Software Technologies: Applications and Foundations*, pages 109–126. Springer, 2018.
- [27] Marino Miculan and Florian Rabe, editors. *LFMTP '17: Proceedings of the Workshop on Logical Frameworks and Meta-Languages: Theory and Practice*. ACM, 2017.
- [28] Marino Miculan and Marco Peressotti. Deciding weak weighted bisimulation. In *Proceedings of ICTCS 2017*, volume 1849 of *CEUR-WS*, pages 126–137, 2017.
- [29] Marino Miculan and Marco Peressotti. Reductions for transition systems at work: Deriving a logical characterization of quantitative bisimulation. *arXiv preprint arXiv:1704.07181*, 2017.
- [30] Barbara Re and Marino Miculan, editors. *Special Issue on Methodologies, Technologies and Tools Enabling e-Government*, volume 8 of *International Journal of Electronic Governance*, 2016.
- [31] Marco Bernardo and Marino Miculan. Disjunctive probabilistic modal logic is enough for bisimilarity on reactive probabilistic systems. In *Proceedings of ICTCS 2016*, volume 1720 of *CEUR-WS*, pages 203–220, 2016.
- [32] Marino Miculan and Marco Peressotti. On the bisimulation hierarchy of state-to-function transition systems. In *Proceedings of ICTCS 2016*, volume 1720 of *CEUR-WS*, pages 88–102, 2016.
- [33] Marino Miculan and Marco Peressotti. Structural operational semantics for non-deterministic processes with quantitative aspects. *Theoretical Computer Science*, 655:135–154, 2016.
- [34] Giorgio Bacci and Marino Miculan. Structural operational semantics for continuous state stochastic transition systems. *Journal of Computer and System Sciences*, 81:834–858, 2015.
- [35] Tomasz Brengos, Marino Miculan, and Marco Peressotti. Behavioural equivalences for coalgebras with unobservable moves. *Journal of Logical and Algebraic Methods in Programming*, 84(6):826–852, 2015.

- [36] Alessio Mansutti, Marino Miculan, and Marco Peressotti. Distributed execution of bigraphical reactive systems. *ECEASST*, 71, 2015.
- [37] Marino Miculan, editor. *PreProceedings of the 2nd International Workshop on Meta Models for Process Languages (MeMo 2015)*, Grenoble, France, 2015.
- [38] Marino Miculan, Marco Peressotti, and Andrea Toneguzzo. Open transactions on shared memory. In Tom Holvoet and Mirko Viroli, editors, *Coordination Models and Languages - 17th IFIP WG 6.1 International Conference, COORDINATION 2015, Proceedings*, volume 9037 of *Lecture Notes in Computer Science*, pages 213–229. Springer, 2015.
- [39] Giorgio Bacci, Marino Miculan, and Romeo Rizzi. Finding a forest in a tree — the matching problem for wide reactive systems. In M. Maffei and E. Tuosto, editors, *Trustworthy Global Computing - 9th International Symposium, TGC 2014, Rome, Italy, September 5-6, 2014. Revised Selected Papers*, volume 8902 of *Lecture Notes in Computer Science*, pages 17–33. Springer, 2014.
- [40] A. Bizjak, Lars Birkedal, and Marino Miculan. A model of countable non-determinism in guarded type theory. In Gilles Dowek, editor, *Proc. RTA-TLCA*, volume 8560 of *Lecture Notes in Computer Science*, pages 108–123. Springer, 2014.
- [41] Alessio Mansutti, Marino Miculan, and Marco Peressotti. Multi-agent systems design and prototyping with bigraphical reactive systems. In K. Magoutis and P. Pietzuch, editors, *Proc. DAIS 2014*, number 8460 in *Lecture Notes in Computer Science*, pages 201–208, 2014.
- [42] Marino Miculan. Tutorial on bigraphical reactive systems (slides). In *1st International Workshop on Meta Models for Process Languages (MeMo)*, 2014.
- [43] Marino Miculan and Marco Peressotti. GSOS for non-deterministic processes with quantitative aspects. In Nathalie Bertrand and Luca Bortolussi, editors, *Proceedings Twelfth International Workshop on Quantitative Aspects of Programming Languages and Systems, QAPL 2014, Grenoble, France, 12-13 April 2014.*, volume 154 of *EPTCS*, pages 17–33, 2014.
- [44] Barbara Re and Marino Miculan, editors. *MeTTeG14, Proceedings of the 8th International Conference on Methodologies, Technologies and Tools Enabling e-Government*, Italy, 2014. Universitas Studiorum.
- [45] Marino Miculan and Marco Peressotti. Weak bisimulations for labelled transition systems weighted over semirings. *CoRR*, abs/1310.4106, 2013.
- [46] Giorgio Bacci and Marino Miculan. Measurable stochastics for Brane Calculus. *Theoretical Computer Science*, 431:117–136, 2012.
- [47] Giorgio Bacci and Marino Miculan. Structural operational semantics for continuous state probabilistic processes. In *Proc. CMCS'12*, volume 7399 of *Lecture Notes in Computer Science*, pages 71–90. Springer, 2012.
- [48] Marino Miculan and Marco Paviotti. Synthesis of distributed mobile programs using monadic types in coq. In Lennart Beringer and Amy P. Felty, editors, *Interactive Theorem Proving - Third International Conference, ITP 2012, Princeton*,

NJ, USA, August 13-15, 2012. Proceedings, volume 7406 of *Lecture Notes in Computer Science*, pages 183–200. Springer, 2012.

- [49] Marino Miculan and Ilaria Sambarino. Implementing the stochastic brane calculus in a generic stochastic abstract machine. In Gabriel Ciobanu, editor, *Proceedings 6th Workshop on Membrane Computing and Biologically Inspired Process Calculi*, volume 100 of *Electronic Proceedings in Theoretical Computer Science*, pages 82–100. Open Publishing Association, 2012.
- [50] Carlo Maiero and Marino Miculan. Unobservable intrusion detection based on call traces in paravirtualized systems. In Javier Lopez and Pierangela Samarati, editors, *Proc. SECRYPT*. SciTePress, 2011.
- [51] Marino Miculan and Caterina Urban. Formal analysis of Facebook Connect single sign-on authentication protocol. In *SofSem 2011, Proceedings of Student Research Forum*, pages 99–116. OKAT, 2011.
- [52] Giorgio Bacci and Marino Miculan. Measurable stochastic brane calculus. In Gabriel Ciobanu and Maciej Koutny, editors, *Proc. MeCBIC*, volume 40 of *EPTCS*, pages 6–22, 2010.
- [53] Karl Crary and Marino Miculan, editors. *Proceedings 5th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice*, volume 34 of *EPTCS*, 2010.
- [54] Davide Grohmann and Marino Miculan. Graph algebras for bigraphs. In J. de Lara C. Ermel and R. Heckel, editors, *Proc. 9th International Workshop on Graph Transformation and Visual Modeling Techniques (GT-VMT'10)*, volume 10 of *Electronic Communications of the EASST*, 2010.
- [55] Giorgio Bacci, Davide Grohmann, and Marino Miculan. Bigraphical models for protein and membrane interactions. In Gabriel Ciobanu, editor, *Proc. MeCBIC'09*, volume 11 of *EPTCS*, 2009.
- [56] Giorgio Bacci, Davide Grohmann, and Marino Miculan. Dbtk: a toolkit for directed bigraphs. In *CALCO 2009 Conference Proceedings - Calco Tools*, volume 5728 of *Lecture Notes in Computer Science*. Springer, 2009.
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