

Dario Della Monica

Ph.D. - Assistant Professor (RTD-A)

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Current academic position

Since **Assistant Professor (RTD-A)**, *University of Udine - Department of Mathematics, Computer Science, and Physics*, Udine, Italy.
October 2018 Research area: Formal Methods for Computer Science and Information Retrieval

Previous academic positions

October 2016– **“INdAM-Marie Curie” Fellow**, *Istituto Nazionale di Alta Matematica (INdAM)*,
April 2018–September 2018: **Research Assistant** at University “Federico II” of
September 2018 Naples - Department of Electrical Engineering and Information Technology (DIETI),
Naples, Italy
October 2016–March 2018: **Research Assistant** at Universidad Complutense de
Madrid - Sección Departamental de Sistemas Informáticos y Computación, Madrid,
Spain.
Research area: Formal Methods for System Verification
January 2016– **Research Assistant**, *University “Federico II” of Naples - Department of Electrical
Engineering and Information Technology (DIETI)*, Naples, Italy.
September 2016 Research area: Formal Methods for System Verification

March 2012– December 2015 **Research Assistant**, *Reykjavik University - School of Computer Science*, Reykjavik, Iceland.
Research area: Interval Temporal Logic

February 2011– January 2012 **Research Assistant**, *University of Salerno - Department of Computer Science*, Salerno, Italy.
Research area: Formal Methods for Systems Verification

Education

January 2008–April 2011 **PhD Student in Computer Science**, *University of Udine - Department of Mathematics and Computer Science*, Udine, Italy.
Research area: Interval Temporal Logics
Thesis title: Expressiveness, decidability, and undecidability of Interval Temporal Logic

January 2005– October 2007 **"Laurea specialistica" (Master's degree) in Computer Science**, *University of Napoli "Federico II"*, Napoli, Italy, *Grade: 110/100 cum laude*.
Area: automatic verification of software
Thesis title: Una procedura di model checking in un dominio lineare astratto per la verifica di programmi C con array (A model checking procedure in abstract linear domain for the verification of C program with array)

September 2001– January 2005 **"Laurea triennale" (Bachelor's Degree) in Computer Science**, *University of Napoli "Federico II"*, Napoli, Italy, *Grade: 110/110*.
Area: 3-D skeletonization process of digital image

Phd thesis

title *Expressiveness, decidability, and undecidability of Interval Temporal Logic*

subject Interval Temporal Logic

supervisor Angelo Montanari

co-supervisor Guido Sciavicco and Valentin Goranko

note Winner of the *GULP prize for the best Italian PhD dissertation in the area of Computational Logic* for the years 2010-2011.

abstract Interval Temporal Logics are formalisms particularly suitable to express temporal properties. Unlike standard temporal logics, they use intervals, instead of points, as primitive ontological entities. The most studied propositional interval temporal logic is Halpern and Shoham's Modal Logic of Time Intervals (HS for short). It features a modal operator for each possible ordering relation between pairs of intervals (the so-called Allen's relations). HS is very expressive, but its satisfiability problem turns out to be highly undecidable (over most classes of linear orders). The three main contributions of this thesis are the following ones. First, we provide a complete classification of HS fragments with respect to their relative expressive power in the class of all linear orders. Second, we systematically investigate the decidable/undecidable status of the satisfiability problem for a number of previously unclassified HS fragments, showing that, once more, undecidability is the rule and decidability the exception. Pairing the results given here with existing ones, the long-standing goal of obtaining a complete classification of all HS fragments with respect to their satisfiability problem is now almost achieved. Third, we study metric, hybrid, and first-order extensions of Propositional Neighborhood Logic (over natural numbers), a meaningful and well-studied decidable fragment of HS.

Master thesis

title *Una procedura di model checking in un dominio lineare astratto per la verifica di programmi C con array (A model checking procedure in abstract linear domain for the verification of C program with array)*

subject Automatic Software Verification

supervisor Massimo Benerecetti

description The thesis regarded the formalization (with relative proof of correctness and completeness) and implementation in C++ language of a new strategy of abstraction and verification absorbed in an abstraction-verification-refinement cycle (CEGAR - CounterExample Guided Abstraction Refinement), basic for Eureka tool (<http://www.ai-lab.it/eureka/>), for automatic verification of linear programs (in C language) with arrays.

Research interests

Interval Temporal Logic Interval temporal logics are based on temporal structures where time intervals, rather than time instants, are the primitive ontological entities. The most important and natural among them is the Halpern and Shoham's Interval Temporal Logic (HS, for short). It features the modal operators corresponding to the various relations between intervals, known as Allen's relations. I have mainly been working on satisfiability and expressiveness issues for (classical extensions of) HS and its fragments.

Automated system verification Automated verification of multi-agent systems is a significant topic in the recent literature in artificial intelligence. The need of modeling this kind of systems has inspired logical formalisms, the most famous being the Alternating-time Temporal Logics, namely ATL*, ATL+, and ATL, oriented towards the description of collective behaviors. These logics are natural specification languages for open systems, that is, systems whose behavior depends on the interaction with an external entity, usually called the environment or the opponent. I faced the problem of model checking ATL-specifications with respect to multi-agents systems (formalized as game arena) where the agents must act subject to constraints on resource availability.

Reactive systems and concurrency theory Equivalence/preorder checking is one of the main approaches to the computer-aided verification of reactive systems. Systems and their specifications are both expressed in the same state-machine-based formalism, and checking whether a system correctly implements its specification amounts to verifying whether the state machines describing them are related by some suitable notion of behavioural equivalence/preorder. I have been working on a logical characterisation of several behavioural relations that have been considered in the field of concurrency theory, aiming at exploring the link between equivalence/preorder checking and another major approach to automated verification of system, namely model checking.

Events and editorship

Editorship

Fundamenta Informaticae, *Guest Editor*, Special Issue of Fundamenta Informaticae based on a selection of papers presented at CILC 2017.

CEUR Workshop Proceedings, *Guest Editor*, Joint Proceedings of ICTCS 2017 and CILC 2017.

Program Committee Chair

CILC 2017, 32nd Italian Conference on Computational Logic "CILC 2017", Naples (Italy), 26-28 September 2017, (<http://cilc2017.unina.it/>).

Program Committee Membership

IJCAI 2019, 28th International Joint Conference on Artificial Intelligence “IJCAI 2019” (<http://ijcai19.org/>), August 10-16, 2019, Macao (China).

AAMAS 2019, 18th International Conference on Autonomous Agents and Multiagent Systems “AAMAS 2019” (<http://aamas2019.encs.concordia.ca/>), May 13-17, 2019, Montreal (Canada).

AAAI 2019, 33rd AAAI Conference on Artificial Intelligence “AAAI 2019” (<http://aaai.org/Conferences/AAAI-19/>), January 27-February 1, 2019, Honolulu, Hawaii (USA).

AI*IA 2018, 17th International Conference of the Italian Association for Artificial Intelligence “AI*IA 2018” (<http://aixia2018.fbk.eu/index.php/home/>), November 20-23, 2018, Trento (Italy).

CILC 2018, 33rd Italian Conference on Computational Logic “CILC 2018” (<https://cilc2018.events.unibz.it>), September 20-22, 2018, Bolzano (Italy).

GandALF 2018, 9th International Symposium on Games, Automata, Logics, and Formal Verification “GandALF 2018” (<https://www.react.uni-saarland.de/gandalf2018/>), September 26-28, 2018, Saarbrücken (Germany).

IJCAI-ECAI 2018, 27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence “IJCAI-ECAI 2018” (<https://www.ijcai-18.org/>), July 13-19, 2018, Stockholm (Sweden).

LRBA 2015, ESSLLI Workshop on Logics for Resource-Bounded Agents “LRBA 2015” (<http://www.cs.nott.ac.uk/~nza/lrba15/>), August 10-14, 2015, Barcelona (Spain).

Organizing Committee Membership

LC 2018, Logic Colloquium 2018, Udine (Italy), 23-28 July 2018, (<https://lc18.uniud.it/>).

ICTCS 2017, 18th Italian Conference on Theoretical Computer Science “ICTCS 2017”, Naples (Italy), 26-28 September 2017, (<http://ictcs2017.unina.it/>).

FMAI 2017, 1st Workshop on Formal Methods in AI “FMAI 2017”, Naples (Italy), 22-24 February 2017, (<https://sites.google.com/site/fmai2017homepage/>).

NWPT 2015, 27th Nordic Workshop on Programming Theory “NWPT 2015”, Reykjavik (Iceland), 21-23 October 2015, (<http://icetcs.ru.is/nwpt2015/>).

Madrid Meet 2015 (CONCUR/QEST/FORMATS and others), joint conference including CONCUR 2015, QEST 2015, FORMATS 2015, TGC 2015, WS-FM/BEAT 2015, and several co-located workshops, Madrid (Spain), 31 August-5 September 2015, (<http://mafalda.fdi.ucm.es/madrid2015/>).

GandALF 2012, 3rd International Symposium on Games, Automata, Logics and Formal Verification “GandALF 2012”, Napoli (Italy), 6-8 September 2012, (<http://www.gandalf.unina.it/>).

GandALF 2011, 2nd International Symposium on Games, Automata, Logics and Formal Verification “GandALF 2011”, Minori, Amalfi Coast, Salerno (Italy), 15-17 June 2011, (<http://gandalf.dia.unisa.it/2011/>).

GandALF 2010, 1st International Symposium on Games, Automata, Logics and Formal Verification “GandALF 2010”, Minori, Amalfi Coast, Salerno (Italy), 17-18 June 2010, (<http://gandalf.dia.unisa.it/2010/>).

GAMES 2009, Annual Workshop “GAMES 2009”, Udine (Italy), 14-17 September 2009, (<http://games2009.dimi.uniud.it/>).

GAMES 2009 is part of the ESF Research Networking Programme on Games for Design and Verification (GAMES) (<http://www.games.rwth-aachen.de/>).

Fundings, research projects, and groups

Principal investigator of funded peer-reviewed research projects

- 2017-2018 **Principal Investigator**, *Model Rating: Enhancing model checking with information on model distance*.
INdAM-COFUND Fellowship in Mathematics and/or Applications for experienced researchers, co-funded by “Marie Curie Actions”. **Amount of the grant: ca. 100,000.00 EUR.**
- 2013-2015 **Principal Investigator**, *Decidability and Expressiveness for Interval Temporal Logics*, project nr. 130802-051.
START Postdoctoral Fellowship programme, Rannis, Icelandic Research Fund, co-funded by “Marie Curie Actions”. **Amount of the grant: 13,320,000.00 ISK (ca. 107,000.00 EUR—exchange rate: Dec 2nd, 2017).**

Participation in funded projects

- 2016 **Strategic reasoning for multi-agent systems.**
University “Federico II” of Naples.
- 2016 **Logics, Automata, and Games for Auto-Adaptive Systems.**
Italian GNCS project.
- 2015 **Algorithmic techniques for model checking and synthesis of safety-critical systems.**
Italian GNCS project.
- 2014-2015 **Formal Methods for the Development and Evaluation of Sustainable Systems.**
Project funded under the Programme NILS Science and Sustainability (Abel - Coordinated Mobility for Researchers), within the Priority Sectors Programme of the EEA Grants Framework.
- 2014 **Automata, Games, and Temporal Logics for Verification and Synthesis of Controllers in Safety-Critical Systems.**
Italian GNCS project.
- 2012-2013 **Processes and Modal Logics**, *project nr. 100048021*.
Icelandic Research Fund.
- 2011 **Metodi formali per la verifica automatica di sistemi.**
University of Salerno.
- 2010 **Logics, Automata, and Games for Formal Verification of Complex Systems.**
Italian GNCS project (<http://itl.dimi.uniud.it/gnacs>).
- 2008 **Innovative and multi-disciplinary approaches for constraint and preference reasoning.**
Italian PRIN project.

Participation in research groups

- 2016- **Member of ASTREA.**
 ASTREA is the “Automated STRategic REAsoning” group, led by prof. Aniello Murano, within the Department of Electrical Engineering and Information Technology (DIETI) at University “Federico II” of Naples (Italy).
- March 2012– **Member of ICE-TCS.**
 December 2015 ICE-TCS is the “Icelandic Center of Excellence in Computer Science”, within the School of Computer Science at Reykjavik University
- January 2007– **Member of the Eureka project.**
 October 2007 Artificial Intelligence laboratory at the University of Genova (Italy), in collaboration with the Section of Computer Science, Physical Sciences Department, University of Napoli (Italy) “Federico II” (<http://www.ai-lab.it/eureka/>).

Grant and prizes

Major awards

- August 2016 **Winner of one of the INdAM-COFUND Fellowships in Mathematics and/or Applications for experienced researchers, co-funded by “Marie Curie Actions”, administered by INdAM (Istituto Nazionale di Alta Matematica “F. Severi”—National Institute for Advanced Mathematics), for funding the project “Model Rating: Enhancing model checking with information on model distance” (2017-2018), amount of the grant: ca. 100,000.00 EUR.**
- March 2013 **Young researcher award for 2011, from University of Udine (Italy) for the paper “Metric Propositional Neighborhood Logics on Natural Numbers” (coauthors: D. Bresolin, A. Montanari, V. Goranko, and G. Sciavicco), Software and Systems Modeling (SoSym) — see below for publication details.**
- January 2013 **Winner of the START Postdoctoral Fellowship programme, co-funded by “Marie Curie Actions”, administered by Rannis through the Icelandic Research Fund (IRF), in partnership with the European Commission Framework 7 Programme (People), for funding the project nr. 130802-051 “Decidability and Expressiveness for Interval Temporal Logics” (2013-2015), amount of the grant: 13,320,000.00 ISK (ca. 107,000.00 EUR—exchange rate: Dec 2nd, 2017).**
- November 2012 **GULP prize for the best Italian PhD dissertation in the area of Computational Logic, for the years 2010-2011 for the PhD thesis “Expressiveness, decidability, and undecidability of Interval Temporal Logic”.**
 GULP is the Italian Association for Logic Programming, affiliated to Association for Logic Programming (ALP).

Other awards

- August 2014 **ECCAI travel grant, to attend the 21st European Conference on Artificial Intelligence (ECAI 2014).**
- May 2014 **Best paper award, for the paper “First steps towards automated synthesis of tableau systems for interval temporal logics” (coauthors: A. Montanari, G. Sciavicco, and D. Tishkovsky), 5th International Conference on Computational Logics, Algebras, Programming, Tools, and Benchmarking (COMPUTATION TOOLS 2014) — see below for publication details.**
- August 2012 **ECCAI travel grant, to attend the 20th European Conference on Artificial Intelligence (ECAI 2012).**
- August 2010 **ECCAI travel grant, to attend the 19th European Conference on Artificial Intelligence (ECAI 2010).**

Teaching and supervision

Teaching

January 2015–May 2015 **Programming Languages**, *Reykjavik University*.

January 2009–May 2011 **Advanced Laboratory of Databases and Information Systems**, *University of Udine*.

Student supervision

Bachelor theses Emanuele D’Agostini (University of Udine, Italy), Luigi D’Amora (University of Salerno, Italy).

Undergraduate project supervision **Tómas Ken Magnússon**, *Enumeration algorithms for modal logics, Horn theories, and hyper-graphs*, Reykjavik University, Iceland.

Other experiences

Extra-academic talks and seminars

25 May 2016 **Dissemination seminar**, *La mente tra logica e percezione: Ragionamento cognitivo e ragionamento simbolico (in Italian—English translation: Mind between logic and perception: Cognitive and symbolic reasoning)*, seminar within the international educational event “Pint of Science 2016”, held at club “U-Turn Piano B”, vico Pallonetto Santa Chiara, 15, Napoli (Italy).

Miscellaneous

May 2017 **Research visiting Period**, *University of Malta - Malta*, Research collaboration. Visiting period c/o professor Adrian Francalanza at University of Malta - Malta for research collaboration.

September 2015– **Research visiting Period**, *Universidad Complutense de Madrid - Spain*, Research collaboration.

November 2015 Visiting period c/o professor David de Frutos Escrig at Universidad Complutense de Madrid - Madrid - Spain for research collaboration.

April 2014–June 2014 **Research visiting Period**, *Universidad Complutense de Madrid - Spain*, Research collaboration.

April 2013–June 2013 Visiting period c/o professor David de Frutos Escrig at Universidad Complutense de Madrid - Madrid - Spain for research collaboration.

April 2013–June 2013 **Research visiting Period**, *University of Murcia - Spain*, Research collaboration. Visiting period c/o professor Guido Sciavicco at University of Murcia - Departamento de Ingeniería de la Información y las comunicaciones - Murcia - Spain for research collaboration.

September 2010– **Research visiting period**, *Technical University of Denmark (DTU), Lyngby, Copenhagen - Denmark*, Research collaboration.

November 2010 Visiting period c/o professor Valentin Goranko at Section Algorithms and Logic - Department of Informatics and Mathematical Modelling (IMM) - Technical University of Denmark (DTU), Lyngby, Copenhagen (Denmark) for research collaboration.

Since **Webmaster**.

February 2010 Webmaster of the website <http://itl.dimi.uniud.it/gncc> (developed in Drupal) about a GNCS project I am involved in.

- October 2009– December 2009 **Research visiting Period**, *University of Murcia - Spain*, Research collaboration. Visiting period c/o professor Guido Sciavicco at University of Murcia - Departamento de Ingenieria de la Información y las comunicaciones - Murcia - Spain for research collaboration.
- Since March 2009 **Webmaster**. Webmaster of the website about Interval Temporal Logic (a major research topic of mine) <http://itl.dimi.uniud.it/> (developed in Drupal).
- February 2005–June 2005 **Programmer**, Napoli, Italy. Implementation of a program for customers/suppliers management for a business agent. Program implemented using the following languages: html, php, javascript, SQL.
- December 2003– February 2004 **Programmer**, "*EDISUD*" *Publishing House*, Salerno, Italy. Implementation of a DataBase for customers/suppliers management for a publishing house.

Artistic performances

- May 2014 **Background actor**, in the Icelandic film *Life in a Fishbowl*. <http://www.imdb.com/title/tt2172554/>
- September 2010 **Scriptwriter**, Co-scriptwriter of the short film *Tempo finito! (Time over!)*, Gruppo Teatrale Universitario (GTU), University of Udine, Italy.

Languages

Italian	Native
English	Fluent
Spanish	Fluent
French	Beginner

Several life and work experiences abroad
Several life and work experiences in Spain
Two years at High School

Computer skills

OS	Linux, Unix, Windows
programming	JAVA, C/C++, Prolog, Lisp, SQL, PHP, JSP
web design	HTML, XHTML, CSS, Drupal
administration	Tomcat, Apache
scripting	Javascript
typography	L ^A T _E X, BibTeX
database	MySQL
verification tool	NuSMV

Personal skills

social	Good relationship in the group work.
organizational	Planning capacities to work in team and analytical skills.
technical	Computer programming, neural network, automatic software verification, logics.
driving license	B

Interests

Football (playing it more than watching it), music, cinema, inter-personal relationships.

Publications

- [1] Luca Aceto, Dario Della Monica, Ignacio Fábregas, and Anna Ingólfssdóttir. When are prime formulae characteristic? *Theoretical Computer Science*, 2018. Available online since 6 December 2018.
- [2] D. Della Monica, N. Gigante, A. Montanari, and P. Sala. A novel automata-theoretic approach to timeline-based planning. In Michael Thielscher, Francesca Toni, and Frank Wolter, editors, *Proc. of the 16th International Conference on Principles of Knowledge Representation and Reasoning (KR)*, pages 541–550. AAAI Press, 2018.
- [3] D. Della Monica and A. Murano. Parity-energy ATL for Qualitative and Quantitative Reasoning in MAS. In *Proc. of the 17th International Conference on Autonomous Agents and MultiAgent Systems (AAMAS)*, pages 1441–1449, Stockholm, Sweden, 2018.
- [4] D. Della Monica, N. Gigante, A. Montanari, P. Sala, and G. Sciavicco. Bounded timed propositional temporal logic with past captures timeline-based planning with bounded constraints. In Carles Sierra, editor, *Proc. of the 26th International Joint Conference on Artificial Intelligence (IJCAI)*, pages 1008–1014, Melbourne, Australia, August 2017. ijcai.org.
- [5] Adrian Francalanza, Luca Aceto, Antonis Achilleos, Duncan Paul Attard, Ian Cassar, Dario Della Monica, and Anna Ingólfssdóttir. A foundation for runtime monitoring. In Shuvendu K. Lahiri and Giles Reger, editors, *Proc. of the 17th International Conference on Runtime Verification (RV)*, volume 10548 of *Lecture Notes in Computer Science*, pages 8–29, Seattle, WA, USA, September 2017. Springer.
- [6] Dario Della Monica, David de Frutos-Escrig, Angelo Montanari, Aniello Murano, and Guido Sciavicco. Evaluation of temporal datasets via interval temporal logic model checking. In Sven Schewe, Thomas Schneider, and Jef Wijsen, editors, *Proc. of the 24th International Symposium on Temporal Representation and Reasoning (TIME)*, volume 90 of *LIPICs*, pages 11:1–11:18, Mons, Belgium, October 2017. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik.
- [7] Dario Della Monica, Angelo Montanari, and Pietro Sala. Beyond ωBS -regular languages: ωT -regular expressions and counter-check automata. In Patricia Bouyer, Andrea Orlandini, and Pierluigi San Pietro, editors, *Proc. of the 8th International Symposium on Games, Automata, Logics and Formal Verification (GandALF)*, volume 256 of *EPTCS*, pages 223–237, Roma, Italy, September 2017.
- [8] Dario Della Monica, Angelo Montanari, Aniello Murano, and Pietro Sala. Prompt interval temporal logic. In *Proc. of the 15th European Conference On Logics In Artificial Intelligence (JELIA)*, volume 10021 of *Lecture Notes in Computer Science*, pages 207–222, 2016.
- [9] Luca Aceto, Dario Della Monica, Valentin Goranko, Anna Ingólfssdóttir, Angelo Montanari, and Guido Sciavicco. A complete classification of the expressiveness of interval logics of Allen’s relations: The general and the dense cases. *Acta Informatica*, 53(3):207–246, 2016.

- [10] D. Romero-Hernández, D. de Frutos-Escrig, and D. Della Monica. Proving continuity of coinductive global bisimulation distances: A never ending story. In *Proc. of the 15th Jornadas sobre PROgramación y LENGUAJES (PROLE)*, EPTCS, 2015.
- [11] L. Aceto, D. Della Monica, I. Fábregas, and A. Ingólfssdóttir. When are prime formulae characteristic? In Giuseppe F. Italiano, Giovanni Pighizzini, and Donald Sannella, editors, *Proc. of the 40th International Symposium on Mathematical Foundations of Computer Science (MFCS)—Part I*, volume 9234 of *LNCS*, pages 76–88. Springer-Verlag Berlin Heidelberg, 2015.
- [12] D. Bresolin, D. Della Monica, A. Montanari, P. Sala, and G. Sciavicco. On the complexity of fragments of the modal logic of Allen’s relations over dense structures. In *Proc. of the 9th International Conference on Language and Automata Theory and Applications (LATA)*, volume 8977 of *Lecture Notes in Computer Science*, pages 511–523. Springer, 2015.
- [13] Luca Aceto, Dario Della Monica, Anna Ingólfssdóttir, Angelo Montanari, and Guido Sciavicco. On the expressiveness of the interval logic of Allen’s relations over finite and discrete linear orders. In E. Fermé and J. Leite, editors, *Proc. of the 14th European Conference on Logics in Artificial Intelligence (JELIA)*, volume 8761 of *LNAI*, pages 267–281, 2014.
- [14] Dario Della Monica, Angelo Montanari, Guido Sciavicco, and Dmitri Tishkovsky. First steps towards automated synthesis of tableau systems for interval temporal logics. In *Proc. of the 5th International Conference on Computational Logics, Algebras, Programming, Tools, and Benchmarking (COMPUTATION TOOLS)*, pages 32–37, Venice, Italy, May 25–29 2014. Winner of the best paper award.
- [15] Davide Bresolin, Dario Della Monica, Angelo Montanari, Pietro Sala, and Guido Sciavicco. Interval temporal logics over strongly discrete linear orders: Expressiveness and complexity. *Theoretical Computer Science (TCS)*, 560:269–291, 2014.
- [16] Davide Bresolin, Dario Della Monica, Valentin Goranko, Angelo Montanari, and Guido Sciavicco. The dark side of Interval Temporal Logic: marking the undecidability border. *Annals of Mathematics and Artificial Intelligence (AMAI)*, 71(1-3):41–83, 2014. Online since September 2013.
- [17] Davide Bresolin, Dario Della Monica, Angelo Montanari, and Guido Sciavicco. The light side of interval temporal logic: the Bernays-Schönfinkel fragment of CDT. *Annals of Mathematics and Artificial Intelligence (AMAI)*, 71(1-3):11–39, 2014. Online since March 2013.
- [18] Luca Aceto, Dario Della Monica, Anna Ingólfssdóttir, Angelo Montanari, and Guido Sciavicco. An algorithm for enumerating maximal models of Horn theories with an application to modal logics. In *Proc. of the 19th International Conference on Logic for Programming, Artificial Intelligence, and Reasoning (LPAR)*, volume 8312 of *Lecture Notes in Computer Science*, pages 1–17. Springer, 2013.
- [19] D. Della Monica, M. Napoli, and M. Parente. Model checking coalitional games in shortage resource scenarios. In *Proc. of the 4th International Symposium on Games, Automata, Logics and Formal Verification (GandALF)*, 2013.
- [20] L. Aceto, D. Della Monica, A. Ingólfssdóttir, A. Montanari, and G. Sciavicco. A complete classification of the expressiveness of interval logics of Allen’s relations over dense

- linear orders. In *Proc. of the 20th International Symposium on Temporal Representation and Reasoning (TIME)*, pages 65–72, 2013.
- [21] D. Bresolin, D. Della Monica, A. Montanari, and G. Sciavicco. A tableau system for right propositional neighborhood logic over finite linear orders: an implementation. In D. Galmiche and D. Larchey-Wendling, editors, *Proc. of the 22nd International Conference on Automated Reasoning with Analytic Tableaux and Related Methods (TABLEAUX)*, volume 8123 of *LNCS*, pages 74–80. Springer-Verlag Berlin Heidelberg, 2013.
- [22] D. Bresolin, D. Della Monica, V. Goranko, A. Montanari, and G. Sciavicco. Metric propositional neighborhood interval logics on natural numbers. *Software and Systems Modeling (SoSyM)*, 12(2):245–264, 2013.
- [23] Dario Della Monica, Valentin Goranko, Angelo Montanari, and Guido Sciavicco. Crossing the undecidability border with extensions of propositional neighborhood logic over natural numbers. *Journal of Universal Computer Science (JUCS)*, 18(20):2798–2831, 2012.
- [24] D. Bresolin, D. Della Monica, A. Montanari, P. Sala, and G. Sciavicco. Interval Temporal Logics over strongly discrete linear orders: the complete picture. In *Proc. of the 3rd International Symposium on Games, Automata, Logics and Formal Verification (GandALF)*, Naples, Italy, September 2012.
- [25] D. Bresolin, D. Della Monica, A. Montanari, P. Sala, and G. Sciavicco. Interval Temporal Logics over finite linear orders: the complete picture. In *Proc. of the 20th European Conference on Artificial Intelligence (ECAI)*, pages 199–204, Montpellier, France, August 2012.
- [26] Dario Della Monica, Angelo Montanari, and Pietro Sala. The importance of the past in interval temporal logics: the case of Propositional Neighborhood Logic. In Alexander Artikis, Robert Craven, Nihan Kesim Cicekli, Babak Sadighi, and Kostas Stathis, editors, *Logic Programs, Norms and Action - Essays in Honor of Marek J. Sergot on the Occasion of His 60th Birthday*, volume 7360 of *Lecture Notes in Computer Science*, pages 79–102. Springer Berlin / Heidelberg, 2012. http://dx.doi.org/10.1007/978-3-642-29414-3_6.
- [27] D. Della Monica and G. Lenzi. On a priced resource-bounded alternating μ -calculus. In *Proc. of the 4th International Conference on Agents and Artificial Intelligence (ICAART)*, pages 222–227, Vilamoura, Algarve, Portugal, February 2012.
- [28] D. Della Monica, V. Goranko, A. Montanari, and G. Sciavicco. Interval Temporal Logics: a Journey. *Bulletin of the EATCS*, 105, October 2011.
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