

# Alberto MOLINARI

Last update March 4, 2019

## PERSONAL DATA

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PLACE OF BIRTH Vittorio Veneto, Italy  
DATE OF BIRTH April 4, 1990  
NATIONALITY Italian  
ADDRESS via del Prà delle Molle, 13, 31029, Vittorio Veneto (TV), Italy  
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## EDUCATION

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2015 – 2018 Doctor of Philosophy (Ph.D.) in Computer Science  
University of Udine, Italy  
Dottorato di Ricerca in Informatica e Scienze matematiche e fisiche  
Thesis title: “Model Checking: the Interval Way”  
Defense: February 28, 2019

MARCH 2015 2nd level Degree in Computer Science  
110/110 cum laude  
University of Udine, Italy  
Thesis title: “Model Checking and Interval Temporal Logics:  
Checking Interval Properties of Computations”

OCTOBER 2012 1st level Degree in Computer Science  
110/110 cum laude  
University of Udine, Italy  
Thesis title: “Two compressed full-text indexes”

JULY 2009 Scientific certificate  
100/100 cum laude  
Liceo Scientifico “M. Flaminio”, Vittorio Veneto, Italy

## LANGUAGES

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ITALIAN Mothertongue  
ENGLISH B2 (Independent)

## COMPUTER SKILLS

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KNOWN COMPUTER LANGUAGES C, Java, Haskell, HTML, Visual Basic .NET, C# .NET Prolog, Python, Matlab...

SOFTWARE APPLICATIONS Office, Open Office, Oracle DBMS, Windows, Linux,...

CERTIFICATIONS ECDL (European Computer Driving Licence) certificate

## STUDIES AND EXPERIENCES ABROAD

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2017 Period abroad during Ph.D.  
Place: LaBRI, Université de Bordeaux, France  
Language: English  
Duration: 3 months

2014 European Union program (Erasmus)  
Place: University of Klagenfurt, Austria  
Language: English  
Duration: 6 months

2008 English course  
Place: Norwich, UK  
Language: English  
Duration: 2 weeks

## SCHOOLS, CONFERENCES AND SEMINARS

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

SEPTEMBER 2018 19th Italian Conference on Theoretical Computer Science (ICTCS)  
<http://www.sti.uniurb.it/events/ictcs2018/cfp.html>  
Urbino, Italy

JULY 2018 Logic Colloquium  
Member of the local organizing committee and contributed speaker  
<https://lc18.uniud.it/>  
Udine, Italy

- SEPTEMBER 2017 8th International Symposium on Games, Automata, Logics,  
and Formal Verification (GandALF)  
<http://gandalf2017.istc.cnr.it/>  
Rome, Italy
- SEPTEMBER 2017 Summer School on Formal Methods for Cyber-Physical Systems  
Edition 2017: Automatic Synthesis of Controllers for Hybrid Systems  
<https://cps-2017.di.univr.it/school-editions/2017>  
Verona, Italy
- SEPTEMBER 2017 15th International Conference on Software Engineering and  
Formal Methods (SEFM)  
<http://sefm17.fbk.eu/>  
Trento, Italy
- JULY 2017 44th International Colloquium on Automata, Languages,  
and Programming (ICALP)  
<http://icalp17.mimuw.edu.pl/>  
Warsaw, Poland
- DECEMBER 2016 36th IARCS Annual Conference on Foundations of Software Technology  
and Theoretical Computer Science (FSTTCS)  
<http://fsttcs.org/archives/2016/local.php>  
Chennai, India
- SEPTEMBER 2016 7th International Symposium on Games, Automata, Logics,  
and Formal Verification (GandALF)  
<http://gandalf2016.dmi.unict.it/>  
Catania, Italy
- AUGUST 2016 28th European Summer School in Logic, Language and Information  
(ESSLI)  
<http://esslli2016.unibz.it>  
Bolzano, Italy
- JUNE 2016 12th Summer School on Modelling and Verification of Parallel  
Processes (MOVEP)  
<http://movep2016.dibris.unige.it>  
Genova, Italy
- APRIL 2016 15th International Conference on Principles of Knowledge

Representation and Reasoning (KR)

<http://kr2016.cs.uct.ac.za>

Cape Town, South Africa

SEPTEMBER 2015 22nd International Symposium on Temporal Representation  
and Reasoning (TIME)

<http://time2015.uni-kassel.de>

Kassel, Germany

SEPTEMBER 2015 Highlights of Logic, Games and Automata

<http://highlights-conference.org/old/2015.php>

Prague, Czech Republic

SEPTEMBER 2015 16th Italian Conference on Theoretical Computer Science (ICTCS)

<http://ictcs2015.disia.unifi.it>

Florence, Italy

2015 Convegno Italiano Logica Computazionale (CILC)

School on Computational Logic + Computational Logic Conference

<http://cilc2015.dibris.unige.it>

Genova, Italy

2014 ACP Summer School

Summer school on Constraint Programming and Hybrid Methods

<http://school.a4cp.org/summer2014>

Bologna, Italy

## BIBLIOMETRIC INDICATORS

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- 5 h-index (calculated by Scopus)
- 6 h-index (calculated by Google Scholar)
- 5 i10-index (calculated by Google Scholar)
- 61 total citations (calculated by Scopus)
- 91 total citations (calculated by Google Scholar)

## PUBLICATIONS

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- [1] Laura Bozzelli, Alberto Molinari, Angelo Montanari and Adriano Peron.  
“Complexity of timeline-based planning over dense temporal domains: exploring the  
middle ground”.  
In “8th International Symposium on Games, Automata, Logics and Formal Verification,  
(GandALF)”, EPTCS, 2018.
- [2] Laura Bozzelli, Alberto Molinari, Angelo Montanari and Adriano Peron.

- “Decidability and Complexity of Timeline-based Planning over Dense Temporal Domains”. In “17th International Conference on Principles of Knowledge Representation and Reasoning (KR)”, AAAI, 2018.
- [3] Laura Bozzelli, Alberto Molinari, Angelo Montanari and Adriano Peron.  
“Timeline-Based Planning over Dense Temporal Domains with Trigger-less Rules is NP-Complete”.  
In “19th Italian Conference on Theoretical Computer Science (ICTCS)”, CEUR Workshop Proceedings, 2018.
- [4] Laura Bozzelli, Alberto Molinari, Angelo Montanari, Adriano Peron and Pietro Sala.  
“Interval vs. Point Temporal Logic Model Checking: an Expressiveness Comparison”.  
*Transactions on Computational Logic*, 2018.
- [5] Laura Bozzelli, Alberto Molinari, Angelo Montanari, Adriano Peron and Pietro Sala.  
“Model Checking for Fragments of the Interval Temporal Logic HS at the Low Levels of the Polynomial Time Hierarchy”.  
*Information and Computation*, 2018.
- [6] Laura Bozzelli, Alberto Molinari, Angelo Montanari, Adriano Peron and Pietro Sala.  
“Which fragments of the interval temporal logic HS are tractable in model checking?”  
*Theoretical Computer Science*, 2018.  
URL <https://doi.org/10.1016/j.tcs.2018.04.011>.
- [7] Alberto Molinari, Angelo Montanari and Adriano Peron.  
“Model checking for fragments of Halpern and Shoham’s interval temporal logic based on track representatives”.  
*Information and Computation*, volume 259:pp. 412–443, 2018.  
URL <https://doi.org/10.1016/j.ic.2017.08.011>.  
22nd International Symposium on Temporal Representation and Reasoning.
- [8] Laura Bozzelli, Alberto Molinari, Angelo Montanari and Adriano Peron.  
“An In-Depth Investigation of Interval Temporal Logic Model Checking with Regular Expressions”.  
In “15th International Conference on Software Engineering and Formal Methods (SEFM)”, volume 10469 of *LNCS*, pp. 104–119. Springer, 2017.  
URL [https://doi.org/10.1007/978-3-319-66197-1\\_7](https://doi.org/10.1007/978-3-319-66197-1_7).
- [9] Laura Bozzelli, Alberto Molinari, Angelo Montanari and Adriano Peron.  
“On the Complexity of Model Checking for Syntactically Maximal Fragments of the Interval Temporal Logic HS with Regular Expressions”.  
In “8th International Symposium on Games, Automata, Logics, and Formal Verification (GandALF)”, volume 256 of *EPTCS*, pp. 31–45, 2017.  
URL <https://doi.org/10.4204/EPTCS.256.3>.
- [10] Laura Bozzelli, Alberto Molinari, Angelo Montanari, Adriano Peron and Pietro Sala.  
“Satisfiability and Model Checking for the Logic of Sub-Intervals under the Homogeneity Assumption”.  
In “44th International Colloquium on Automata, Languages, and Programming (ICALP)”, pp. 120:1–120:14, 2017.

- URL <https://doi.org/10.4230/LIPIcs.ICALP.2017.120>.
- [11] Laura Bozzelli, Alberto Molinari, Angelo Montanari, Adriano Peron and Pietro Sala.  
“Interval Temporal Logic Model Checking Based on Track Bisimilarity and Prefix Sampling”.  
In “19th Italian Conference on Theoretical Computer Science (ICTCS)”, pp. 49–61. CEUR Workshop Proceedings, 2016.
- [12] Laura Bozzelli, Alberto Molinari, Angelo Montanari, Adriano Peron and Pietro Sala.  
“Interval Temporal Logic Model Checking: the Border Between Good and Bad HS Fragments”.  
In “International Joint Conference on Automated Reasoning (IJCAR)”, LNCS 9706, pp. 389–405. Springer, 2016.  
URL [http://dx.doi.org/10.1007/978-3-319-40229-1\\_27](http://dx.doi.org/10.1007/978-3-319-40229-1_27).
- [13] Laura Bozzelli, Alberto Molinari, Angelo Montanari, Adriano Peron and Pietro Sala.  
“Interval vs. Point Temporal Logic Model Checking: an Expressiveness Comparison”.  
In “36th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)”, pp. 26:1–26:14, 2016.  
URL <http://dx.doi.org/10.4230/LIPIcs.FSTTCS.2016.26>.
- [14] Laura Bozzelli, Alberto Molinari, Angelo Montanari, Adriano Peron and Pietro Sala.  
“Model Checking the Logic of Allen’s Relations Meets and Started-by is  $P^{NP}$ -Complete”.  
In “7th International Symposium on Games, Automata, Logics and Formal Verification (GandALF)”, pp. 76–90, 2016.  
URL <http://dx.doi.org/10.4204/EPTCS.226.6>.
- [15] Alberto Molinari, Angelo Montanari and Adriano Peron.  
“Constraining Cycle Alternations in Model Checking for Interval Temporal Logic”.  
*Electr. Notes Theor. Comput. Sci.*, volume 322:pp. 211–226, 2016.  
URL <http://dx.doi.org/10.1016/j.entcs.2016.03.015>.
- [16] Alberto Molinari, Angelo Montanari, Adriano Peron and Pietro Sala.  
“Model Checking Well-Behaved Fragments of HS: The (Almost) Final Picture”.  
In “15th International Conference on Principles of Knowledge Representation and Reasoning (KR)”, pp. 473–483. AAAI Press, 2016.  
URL <http://www.aaai.org/ocs/index.php/KR/KR16/paper/view/12792>.
- [17] Alberto Molinari, Angelo Montanari, Aniello Murano, Giuseppe Perelli and Adriano Peron.  
“Checking interval properties of computations”.  
*Acta Informatica*, pp. 1–33, 2015.  
URL <http://dx.doi.org/10.1007/s00236-015-0250-1>.
- [18] Alberto Molinari, Angelo Montanari and Adriano Peron.  
“Complexity of ITL Model Checking: Some Well-Behaved Fragments of the Interval Logic HS”.  
In “22nd International Symposium on Temporal Representation and Reasoning (TIME)”, pp. 90–100. IEEE Press, 2015.  
URL <http://dx.doi.org/10.1109/TIME.2015.12>.
- [19] Alberto Molinari, Angelo Montanari and Adriano Peron.

“A Model Checking Procedure for Interval Temporal Logics based on Track Representatives”.

In “24th EACSL Annual Conference on Computer Science Logic (CSL)”, pp. 193–210. Schloss Dagstuhl, 2015.

URL <http://dx.doi.org/10.4230/LIPIcs.CSL.2015.193>.

## TEACHING ASSISTANCE

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- 2018 Teaching assistance in the course “Algorithms and Data Structures”  
(Bachelor Degree in Computer Science)  
Place: University of Udine, Italy  
Language: Italian  
Duration: 24 hours
  
- 2016/17 Teaching assistance in the course “Algorithms and Data Structures”  
(Bachelor Degree in Computer Science)  
Place: University of Udine, Italy  
Language: Italian  
Duration: 24 hours