

# Curriculum Vitæ et Studiorum

Mario Alviano

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## 1 Personal information

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## 2 Current position

Associate Professor in Computer Science (subject area INF/01) at the Department of Mathematics and Computer Science, University of Calabria.

## 3 Biographical note

My name is Mario Alviano. I was born on 12 September 1983, in Vibo Valentia, Italy. I attended high school in Catanzaro, at I.T.I.S. “E. Scalfaro”, specializing in Computer Science. In 2002, when I was 18, I participated in the Italian Olympics of Informatics, and I was the 1st on regional level (Calabria) and the 25th on the national level.

In 2005, I was in Vienna, Austria, where I worked on my Bachelor Thesis at Vienna University of Technology (TU Wien); my thesis was “Progettazione e implementazione di un linguaggio logico con costrutti frame e higher-order”, advised by Giovambattista Ianni and Thomas Eiter. I graduated cum laude in the Bachelor of Science in Computer Science in the University of Calabria.

In 2007, I graduated cum laude in the Master of Science in Computer Science in the University of Calabria. In 2008 my Master’s Thesis, “Efficient Recursive Aggregates Evaluation in Logic Programming”, advised by Nicola Leone and Wolfgang Faber, won the “Italian best thesis in Artificial Intelligence” award, a prize awarded by AI\*IA, the Italian Association for Artificial Intelligence (Associazione Italiana per l’Intelligenza Artificiale).

In 2007, I was admitted to the Doctoral Program in Mathematics and Informatics at the Department of Mathematics of the University of Calabria. On 23 December 2010 I defended my Ph.D. Thesis, “Dynamic Magic Sets”, advised by Wolfgang Faber and Nicola Leone. In 2012 I was awarded an honourable mention for my Ph.D. Thesis by the European Coordinating Committee for Artificial Intelligence (ECCAI), a prize awarded to the three best European doctoral dissertations in Artificial Intelligence.

From February 2011 to December 2012 I was a PostDoc Researcher in Computer Science (subject area INF/01) at the Department of Mathematics, University of Calabria.

From January 2013 to December 2016 I was a Researcher (Assistant Professor) in Computer Science (subject area INF/01) at the Department of Mathematics and Computer Science, University of Calabria. I taught Knowledge Representation to master students in Computer Science, and Informatics for Cultural Heritage to master students in Archeology. From March to June 2014 I was a visiting researcher at the University of Oxford. From March to June 2015 I was a visiting researcher at the University of Vienna.

Since January 2017 I am an Associate Professor in Computer Science (subject area INF/01) at the Department of Mathematics and Computer Science, University of Calabria. I teach Knowledge Representation and Semantic Web, and Secure Software Design to master students of Computer Science. In June 2017 I was a visiting professor at University of Helsinki.

In 2017 I received the Artificial Intelligence Award “Marco Somalvico” from the Italian Association for Artificial Intelligence (Associazione Italiana per l’Intelligenza Artificiale, AI\*IA), a prize assigned to young researchers (under 35) who gave a significative personal contribution to artificial intelligence. In May 2019 I received the Italian habilitation to Full Professor in Computer Science (subject area INF/01). In September 2019 I was a visiting professor at Mindanao State University and at University of Science and Technology of Southern Philippines.

## 4 Education

### 4.1 University education

**PhD in Mathematics and Computer Science.** I received the title of Ph.D. in Mathematics and Computer Science on 23 December 2010 at University of Calabria. My thesis, entitled “Dynamic Magic Sets” and advised by Prof. Wolfgang Faber and Prof. Nicola Leone, received an honourable mention by the European Coordinating Committee for Artificial Intelligence (ECCAI).

**Laurea Specialistica in Informatica (Master of Science in Computer Science).** I obtained the degree on 27 July 2007 at University of Calabria with vote 110/110 cum laude and honorable mention. The degree program lasts two years and consists of 120 CFU. My thesis, entitled “Efficient Recursive Aggregates Evaluation in Logic Programming” and advised by Prof. Nicola Leone and Prof. Wolfgang Faber, was judged the best master thesis on Artificial Intelligence in Italy by the Italian Association for Artificial Intelligence (AI\*IA).

**Laurea in Informatica (Bachelor of Science in Computer Science).** I obtained the degree on 25 July 2005 at University of Calabria with vote 110/110 cum laude and honorable mention. The degree program lasts three years and consists of 180 CFU. My thesis, entitled “Design and implementation of logic language with frames and higher-order constructs”, was advised by Prof. Giovambattista Ianni and Prof. Thomas Eiter.

### 4.2 Other titles and certificates

**International English Language Testing System (IELTS).** In December 2010 I obtained the IELTS certificate, issued by University of Cambridge, with grade 7/9, attesting the knowledge of the English language to the C1 level (advanced level or “Autonomous efficiency”) of the Common European Framework of Reference for Languages (CEFR).

**Preliminary English Test (PET).** In June 2008 I obtained the PET certificate, issued by University of Cambridge, with the maximum score (Pass with Merit). PET certification attests the knowledge of the English language to the B1 level (intermediate or “threshold”) of the Common European Framework of Reference for Languages (CEFR).

### 4.3 Education schools and stages

**ISCL Third International ALP/GULP Spring School on Computational Logic 2011.** I attended the Spring School ISCL 2011, organized by University of Bologna and held in April 2011 in Bertinoro.

**GII Doctoral School on Advances in Databases 2009.** I attended the Summer School GII 2009, organized by University of Calabria and held in September 2009 in Cosenza and Cetraro.

**21st European Summer School in Logic, Language and Information Bordeaux - ESSLLI 2009.** I attended the Summer School ESSLLI 2009, organized by Association for Logic, Language and Information (FoLLI) and held in July 2009 in Bordeaux (France).

**Stage at TU Wien 2009.** From April 2009 to May 2009 I completed a stage at Vienna University of Technology (TU Wien), Austria. The stage, entitled “Extension of the Magic Sets technique to disjunctive programs with stratified negation”, was financed by Regione Calabria (POR Calabria 2000-2006 – misura 3.7).

**Stage at TU Wien 2005.** From April 2005 to June 2005 I completed a stage at Vienna University of Technology (TU Wien), Austria. During the stage, I designed and implemented a logic language with frames and higher-order atoms. The stage was financed by TU Wien.

## 5 Scholarships and awards

### 5.1 Major sholarships and prizes

**First prize at the LP/CP Programming Contest 2019.** On the 21th of September 2019, in Las Cruces, New Mexico, I participated and won the LP/CP Programming Contest. The other member of the team is Martin Gebser.

**Artificial Intelligence Award “Marco Somalvico” 2017.** Award assign by the Italian Association for Artificial Intelligence (Associazione Italiana per l’Intelligenza Artificiale, AI\*IA) to young researchers (under 35) who gave a significative personal contribution to artificial intelligence.

**Winner of the Complete Semantics Track at ICCMA 2017.** First classified at the Complete Semantics Track of the 2nd International Competition on Computational Models of Argumentation with the solver PYGLAF.

**Winner of the Stable Semantics Track at ICCMA 2017.** First classified at the Stable Semantics Track of the 2nd International Competition on Computational Models of Argumentation with the solver PYGLAF.

**Winner of the Ideal Semantics Track at ICCMA 2017.** First classified at the Ideal Semantics Track of the 2nd International Competition on Computational Models of Argumentation with the solver PYGLAF.

**First prize at the LP/CP Programming Contest 2017.** On the 30th of August 2017, in Melbourne, I participated and won the LP/CP Programming Contest. The other members of the team are Bernhard Bliem and Johannes K. Fichte.

**Best Paper Award at ICLP 2016.** Award assigned for the article “Anytime answer set optimization via unsatisfiable core shrinking”. Co-author: Carmine Dodaro.

**Winner of the Marathon Track of the ASP Competition 2016.** First classified with the solver WASP.

**First prize at the LP/CP Programming Contest 2016.** On the 18th of October 2016, in New York, I participated and won the LP/CP Programming Contest. The other member of the team is Martin Gebser.

**Best Paper Award at ICLP 2015.** Award assigned for the article “Complexity and compilation of GZ-aggregates in answer set programming”. Co-author: Nicola Leone.

**Best Paper Award at RR 2015.** Award assigned for the article “Supportedly stable answer sets for logic programs with generalized atoms”. Co-author: Wolfgang Faber.

**Second place at the LP/CP Programming Contest 2015.** On the 2nd of September 2015, in Cork, Ireland, I participated to the LP/CP Programming Contest, obtaining the second place.

**First prize at the ASP Modeling Competition 2014.** On the 20th of July 2014, in Vienna, I participated and won the ASP Modeling Competition. The other members of the team are Carmine Dodaro and Wolfgang Faber.

**ECCAI honourable mention.** In 2012 I was awarded an honourable mention for my Ph.D. Thesis by the European Coordinating Committee for Artificial Intelligence (ECCAI), a prize awarded to the three best European doctoral dissertations in Artificial Intelligence.

**Scholarship (PhD).** During my PhD, from November 2007 to October 2010, I received a three-year scholarship by University of Calabria.

**Best Master Thesis in Artificial Intelligence in Italy.** In 2008 my Master’s Thesis won the “Italian best thesis in Artificial Intelligence” award, a prize awarded by AI\*IA, the Italian Association for Artificial Intelligence (Associazione Italiana per l’Intelligenza Artificiale).

**Best master student in Computer Science.** In 2008, at the event “Lauree d’Argento”, I received an honorable mention by the Faculty of Mathematical, Physical and Natural Sciences, University of Calabria.

**Degree award for excellence (laurea specialistica).** In January 2008 I received a degree award for Excellence, awarded by University of Calabria.

**Scholarship for excellence (laurea specialistica).** During the A.A. 2006-2007 I received a one-year scholarship by University of Calabria.

**Degree award for excellence (laurea triennale).** In January 2006 I received a degree award for Excellence, awarded by University of Calabria.

**Scholarship for excellence (laurea specialistica).** During the A.A. 2004-2005 I received a one-year scholarship by University of Calabria.

**Scholarship for excellence (laurea triennale).** During the A.A. 2003-2004 I received a one-year scholarship by University of Calabria.

**Olimpiadi Italiane dell'Informatica (OII).** In 2002 I participated in the Italian Olympics of Informatics, and I was the 1st on regional level (Calabria) and the 25th on the national level.

## 5.2 Additional funding in the university

**ECCAI Travel Grant — ECAI 2012.** I received a grant from the European Coordinating Committee for Artificial Intelligence (ECCAI) to attend the conference ECAI 2012, held in July 2012 in the city of Montpellier, France.

**Scholarship GULP — ISCL 2011.** I received a grant from Gruppo Ricercatori e Utenti Logic Programming (GULP) to attend the school ISCL 2011 (Third International ALP/GULP Spring School on Computational Logic), held in April 2011 in the town of Bertinoro, Italy.

**Student Travel Grant FLoC — ICLP 2010.** I received a grant from the Federated Logic Conference (FLOC) 2010 to attend the conference ICLP 2010, held in July 2010 in the city of Edinburgh, Scotland.

**Voucher Regione Calabria — POR FSE CALABRIA 2007/2013.** I received a grant from Regione Calabria for a stage at Vienna University of Technology (TU Wien), Austria, from April 2009 to May 2009.

**Scholarship TU WIEN.** From April 2005 to June 2005 I received funding from Vienna University of Technology (TU Wien) for a stage in Austria.

## 6 Research projects

**PON BA2Know — PON03PE 00001 1, PON Ricerca e Competitività, D.R. prot. n. 713/Ric. 29/10/2010.** I participated as a teacher and researcher to the project entitled “Business Analytics to Know” and funded by Ministero dell’Istruzione, dell’Università e della Ricerca (MIUR).

**THT — Talent Hunter Technology.** I participated as a researcher to the project entitled “Talent Hunter Technology”, in collaboration with DLVSYSTEM s.r.l.

**PIA iTravel Plus — POR Calabria FESR 2007-2013 — BURC n. 49 s.s. n. 1 16/12/2010.** I participated as a researcher to the project entitled “Intelligent Touristic advisor Plus” and funded by Ministero dell’Istruzione, dell’Università e della Ricerca (MIUR).

**UNICAL Giovani Ricercatori — D.R. N. 2470 del 09/12/2014.** From March 2015 to June 2015 I was responsible for a research project entitled “Complexity and expressivity of default reasoning over existential logic rules” and funded by University of Calabria (Finanziamento progetti di ricerca “Giovani ricercatori” — D.R. N. 2470 del 09/12/2014).

**GNCS Giovani Ricercatori.** I was responsible for an annual research project (29/09/2014 – 29/09/2015) entitled “Fuzzy Answer Set Programming: Complexity analysis and implementation of a solver” and funded by Gruppo Nazionale per il Calcolo Scientifico of Istituto Nazionale di Alta Matematica “F. Severini”.

**PON FRAME — PON01 02477, PON Ricerca e Competitivita 2007/2013.** I participated as a researcher and teacher to the project entitled “Un FRAMework flessibile ed espandibile, fondato su METodologie e strumenti basati sulla conoscenza, per il consolidamento e la gestione ottimizzata di sistemi informativi complessi” and funded by Ministero dell’Istruzione, dell’Università e della Ricerca (MIUR).

**PIA KnowRex — POR Calabria FESR 2007-2013 — BURC n. 49 s.s. n. 1 16/12/2010.** I participated as a researcher to the project entitled “Un sistema per il riconoscimento e l’estrazione di conoscenza” and funded by Ministero dell’Istruzione, dell’Università e della Ricerca (MIUR).

**UNICAL Giovani Ricercatori — D.R. N. 715 del 11/03/2010.** From July 2010 to June 2011 I was responsible for an annual research project entitled “Dynamic Magic Sets for Answer Set Programs with Recursive Aggregates” and funded by University of Calabria (Finanziamento progetti di ricerca “Giovani ricercatori” — D.R. N. 715 del 11/03/2010). The project aims to develop new techniques for query optimization of logic programs with recursive aggregates.

**LoDeN — MIUR PRIN 2008.** Since 2010 I was engaged in a two-year project entitled “Nonmonotone Description Logics: Complexity and implementations (Loden)” and financed by the Ministry of Education, University and Research (MIUR). The project has the following objective: to identify and implement (through a reduction to logic programming) extensions of nonmonotonic description logics of low complexity. The project partners are University of Naples, University of Piemonte Orientale, University of Calabria and National Research Council of Pisa.

**PIA Artémat — G.R. n. 220 del 19/03/2008.** From April 2010 I was engaged in a two-year project funded by Regione Calabria (GR no. 220 of 19.03.2008 – Pacchetti Integrati di Agevolazione Industria, Artigianato e Servizi, PIA). The project has the following objective: implementing Intelligent Agents to support Business Simulation applications. The project partners are Artémat Ltd., the Department of Mathematics and the Department of Electronics, Information and Systems of University of Calabria.

**PIA DLVSYSTEM — G.R. n. 220 del 19/03/2008.** From November 2009 I was engaged in a two-year project entitled “Extensions and verticalization of the artificial intelligence system DLV” and financed by Regione Calabria (GR n. 220, 19.03.2008 — Pacchetti Integrati di Agevolazione Industria, Artigianato e Servizi, PIA). The project partners are DLVSYSTEM s.r.l. and the Department of Mathematics, University of Calabria.

**Progetto di internazionalizzazione Italia–Austria finanziamento dal MIUR.** In 2008, 2009 and 2010 I was engaged in the project entitled “Sistemi basati sulla logica per la rappresentazione di conoscenza: estensioni e tecniche di ottimizzazione” and financed by the Ministry of Education, University and Research (MIUR). The project has the following objective: strengthening of the Artificial Intelligence system DLV. The project partners are the Department of Mathematics, University of Calabria, and the Department of Information Systems, Vienna University of Technology.

## 7 Editor and reviewer activity

### 7.1 Journal editor

I served as editor for the following journals:

- *Intelligenza Artificiale*, IOS Press, Guest Editor, 2020;
- *Scientific Programming*, Hindawi, Member of Editorial Board, 2017, 2018.

### 7.2 Proceedings editor

I served as editor for the following proceedings:

- *CEUR Workshop Proceedings*, CEUR-WS.org, vol. 2368, 2495;
- *Lecture Notes in Computer Science*, Springer, vol. 11946.

### 7.3 Newsletter editor

I am Area Editor (Foundation) of the ALP Newsletter, the electronic newsletter of the Association for Logic Programming.

### 7.4 Journal paper reviews

I was a reviewer for the following journals:

- *A&C — Argument & Computation*;
- *AIJ — Artificial Intelligence*;
- *AICOMM — AI Communications*;
- *AMAI — Annals of Mathematics and Artificial Intelligence*;
- *FI — Fundamenta Informaticae*;
- *FLAP — IfCoLog Journal of Logics and their Applications*;



- FSS — Fuzzy Sets and Systems;
- JCSS — Journal of Computer and System Sciences;
- JETAI — Journal of Experimental & Theoretical Artificial Intelligence;
- JSAT — Journal on Satisfiability, Boolean Modeling, and Computation;
- JLC — Journal of Logic and Computation;
- KI — Künstliche Intelligenz;
- LMCS — Logical Methods in Computer Science;
- MACH — Machine Learning;
- MSCS — Mathematical Structures in Computer Science;
- TCS — Theoretical Computer Science;
- TKDD — ACM Transactions on Knowledge Discovery from Data;
- TPLP — Theory and Practice of Logic Programming.

## 7.5 Book chapter reviews

I was a reviewer for the following book:

- Gerd Brewka and Victor Marek and Mirosław Truszczyński, editors, *Nonmonotonic Reasoning, Essays Celebrating its 30th Anniversary*. College Publications, 2011.

## 7.6 Conferences and workshops reviews

I was a reviewer for the following conferences and workshops:

- AAI, AAAI Conference on Artificial Intelligence, 2011, 2012, 2014, 2015;
- AIxIA, International Conference of the Italian Association for Artificial Intelligence, 2015-DC;
- CILC, Italian Conference on Computational Logic, 2009;
- Datalog 2.0, International Workshop on the Resurgence of Datalog in Academia and Industry, 2012;
- NMR, International workshops on nonmonotonic reasoning, 2010;
- ECAI, European Conference on Artificial Intelligence, 2012, 2016;
- ESWC, Extended Semantic Web Conference, 2014;
- ICDT, International Conference on Database Theory, 2017;
- ICLP, International Conference on Logic Programming, 2009, 2010, 2011, 2012, 2013;
- ICTAC, International Colloquium on Theoretical Aspects of Computing, 2013;
- IJCAI, International Joint Conference on Artificial Intelligence, 2009;

- JELIA, European Conference on Logics in Artificial Intelligence, 2010, 2012, 2014, 2016;
- KR, International Conference on Principles of Knowledge Representation and Reasoning, 2008, 2010, 2014;
- LICS, Annual ACM/IEEE Symposium on Logic in Computer Science, 2015;
- LPAR, International Conferences on Logic for Programming, Artificial Intelligence and Reasoning, 2008;
- LPNMR, International Conference on Logic Programming and Nonmonotonic Reasoning, 2009, 2011, 2013, 2015;
- ONTOLP, Ontologies and Logic Programming for Query Answering, 2015;
- PODS, ACM Symposium on Principles of Database Systems, 2015, 2017;
- RCRA, Experimental evaluation of algorithms for solving problems with combinatorial explosion, 2008, 2009;
- RR 2014.

## 7.7 Post-publication reviews

Since 2013 I am writing post-publication reviews for Mathematical Reviews, published by the American Mathematical Society.

Since 2012 I am writing post-publication reviews for Zentralblatt MATH, published by Springer.

## 7.8 Research project reviews

I was a reviewer for research project proposals:

- Information and Communication Technology 2019 (ICT19), Vienna Science and Technology Fund;
- Research Foundation - Flanders (FWO), Postdoctoral Fellow 2016.

# 8 Partecipation in Committees

## 8.1 Organization Committee membership

I am a member of the following Organization Committees:

- Program Chair of AI\*IA 2019 (the 18th International Conference of the Italian Association for Artificial Intelligence), Rende (CS), Italy, 19-22 November 2019.
- Program Chair of DATALOG 2.0 2019 (3rd International Workshop on the Resurgence of Datalog in Academia and Industry), Philadelphia, PA (USA), 3-5 June 2019.
- Workshops Chair of LPNMR 2019 (15th International Conference on Logic Programming and Nonmonotonic Reasoning), Philadelphia, PA (USA), 3-7 June 2019.
- ASP Competition 2011 — 3-th Answer Set Programming Competition;
- CILC 2010 — 25-esimo Convegno Italiano di Logica Computazionale, Rende, Italy, 7–9 July 2010.

## 8.2 Program Committee membership

I am a member of Program Committee of the following conferences and workshops:

- AAI, AAI Conference on Artificial Intelligence, 2017, 2018, 2019, 2020, 2021;
- ASPOCP, Workshop on Answer Set Programming and Other Computing Paradigms, 2019, 2020;
- CIKM, ACM International Conference on Information and Knowledge Management, 2020;
- CILC, Italian Conference on Computational Logic, 2018, 2020;
- ECAI, European Conference on Artificial Intelligence, 2020 (SPC);
- EPIA, EPIA Conference on Artificial Intelligence, 2017, 2019, 2020;
- FLoC, Federated Logic Conference, 2018;
- ICLP, International Conference on Logic Programming, 2017, 2018, 2019, 2020;
- ICTCS, Italian Conference on Theoretical Computer Science, 2020;
- IJCAI, International Joint Conference on Artificial Intelligence, 2011, 2015, 2016, 2017, 2018, 2019, 2020 (**SPC** of IJCAI/PRICAI), 2021 (**SPC**);
- JELIA, European Conference on Logics in Artificial Intelligence, 2019;
- KR, International Conference on Principles of Knowledge Representation and Reasoning, 2018, 2020;
- LNMR, International Workshop on Learning and Nonmonotonic Reasoning, 2015;
- PADL, International Symposium on Practical Aspects of Declarative Languages, 2016, 2019, 2021;
- PoS, Pragmatics of SAT, 2018;
- RCRA, Experimental evaluation of algorithms for solving problems with combinatorial explosion, 2014, 2015, 2016, 2017, 2018, 2019, 2020;
- RuleML, International Joint Conference on Rules and Reasoning, 2015, 2017;
- SAC, ACM/SIGAPP Symposium On Applied Computing, 2020, 2021;
- SAFA, International Workshop on Systems and Algorithms for Formal Argumentation, 2018, 2020;
- SoCS, Annual Symposium on Combinatorial Search, 2020.

## 9 Participation in conferences and workshops

### 9.1 Speaker activity at conferences and workshops

I was a speaker at the following conferences and workshops:

- ICLP 2019 — 35th International Conference on Logic Programming, Las Cruces, New Mexico (USA), 20–25 September 2019: “Inconsistency Proofs for ASP: The ASP-DRUPE Format”, “Enhancing magic sets for ontological reasoning”;
- LPNMR 2019 — 15th International Conference on Logic Programming and Nonmonotonic Reasoning, Philadelphia, Pennsylvania (USA), 3–7 July 2019: “Pills from ASP Challenge 2019”;
- ASPOCP 2018 — 12th Workshop on Answer Set Programming and Other Computing Paradigms, Oxford, UK, 18 July 2018: “Optimization Problems in Answer Set Programming” (**keynote talk**);
- IJCAI 2018 — Twenty-Seventh International Joint Conference on Artificial Intelligence, Stockholm, Sweden, 13–19 July 2018: “Query answering in propositional circumscription”;
- AIxIA 2017 — 16th International Conference of the Italian Association for Artificial Intelligence, Bari, Italy, 14–17 November 2017: “Optimization Problems in Answer Set Programming (and other pills of my work)” (**invited talk**);
- RCRA 2017 — 24th International Workshop, Bari, Italy, 14–17 November 2017: “Ingredients of the argumentation reasoner pyglaf: Python, circumscription, and glucose to taste”;
- ICTCS & CILC 2017 — 18th Italian Conference on Theoretical Computer Science & 32nd Italian Conference on Computational Logic, Napoli, Italy, 26–28 September 2017: “Optimization Problems in Answer Set Programming” (**keynote talk**);
- ICLP 2017 — 33rd International Conference on Logic Programming, Melbourne, Australia, 28 August– 1 September 2017: “Model enumeration in propositional circumscription via unsatisfiable core analysis”, “The pyglaf argumentation reasoner”;
- IJCAI 2017 — Twenty-Sixth International Joint Conference on Artificial Intelligence, Melbourne, Australia, 19–25 August 2017: “Unsatisfiable core shrinking for anytime answer set optimization” (**invited talk**);
- AAI 2016 — Thirty Conference on Artificial Intelligence, Phoenix, Arizona, USA, 12–17 February 2016: “Boolean Functions with Ordered Domains in Answer Set Programming”, “What’s Hot in the Answer Set Programming Competition”;
- IJCAI 2016 — 25th International Joint Conference on Artificial Intelligence, New York City, New York, USA, 9–15 July 2016: “From Non-Convex Aggregates to Monotone Aggregates in ASP” (**invited talk**), “On the Properties of GZ-Aggregates in Answer Set Programming”, “Completion of Disjunctive Logic Programs”;
- ICLP 2016 — 32nd International Conference on Logic Programming, New York City, New York, USA, 16–21 October 2016: “Anytime answer set optimization via unsatisfiable core shrinking”;

- RCRA 2015 — 22nd RCRA International Workshop, Ferrara, Italy, 22 September 2015: “A MaxSAT Algorithm Using Cardinality Constraints of Bounded Size”, “Evaluating Answer Set Programming with Non-Convex Recursive Aggregates”, “Fuzzy Answer Set Computation via Satisfiability Modulo Theories”, “JWASP: A New Java-Based ASP Solver”;
- IJCAI 2015 — Twenty-fourth International Joint Conference on Artificial Intelligence, Buenos Aires, Argentina, 25–31 July 2015: “A MaxSAT Algorithm Using Cardinality Constraints of Bounded Size”, “Stable Model Semantics of Abstract Dialectical Frameworks Revisited: A Logic Programming Perspective”;
- ICLP 2015 — 31st International Conference on Logic Programming, Cork, Ireland, 31 August– 4 September 2015: “Rewriting recursive aggregates in answer set programming: back to monotonicity”, “Complexity and Compilation of GZ-Aggregates in Answer Set Programming”, “Fuzzy Answer Set Computation via Satisfiability Modulo Theories”;
- ASPOCP 2015 — 8th Workshop on Answer Set Programming and Other Computing Paradigms, Cork, Ireland, 31 August: “Reduct-based Stability Check Using Literal Assumptions”;
- ICLP 2014 — 30th International Conference on Logic Programming, Vienna, Austria, 19–22 July 2014: “Anytime Computation of Cautious Consequences in Answer Set Programming”;
- RCRA 2014 — 21st RCRA International Workshop, Vienna, Austria, 17–18 July 2014: “Declarative Specification of Benchmark Sessions via ASP”;
- LPNMR 2013 — 12th International Conference on Logic Programming and Nonmonotonic Reasoning, Corunna, Spain, 15–19 September 2013: “The Complexity Boundary of Answer Set Programming with Generalized Atoms under the FLP Semantics”;
- ICLP 2013 — 29th International Conference on Logic Programming, Istanbul, Turkey, 24–29 August 2013: “Fuzzy answer sets approximations”;
- ASPOCP 2013 — 6th Workshop on Answer Set Programming and Other Computing Paradigms, Istanbul, Turkey, 25 August 2013: “Properties of Answer Set Programming with Convex Generalized Atoms”;
- Datalog 2.0 2012, Vienna, Austria, 10–13 September 2012: “Magic-Sets for Datalog with Existential Quantifiers”;
- ICLP 2012 — 28th International Conference on Logic Programming, Budapest, Hungary, 4–8 September 2012: “Disjunctive Datalog with Existential Quantifiers: Semantics, Decidability, and Complexity Issues”;
- ECAI 2012 — 20th European Conference on Artificial Intelligence, Montpellier, France, 27–31 July 2012: “Dynamic Magic Sets”;
- CILC 2011 — 26-esimo Convegno Italiano di Logica Computazionale, Pescara, Italy, 31 August– 2 September 2011: “Complexity of Super-Coherence Problems in ASP”;
- LPNMR 2011 — 11th International Conference on Logic Programming and Nonmonotonic Reasoning, Vancouver, Canada, 16–19 May 2011: “Dynamic Magic Sets for Programs with Monotone Recursive Aggregates”;

- ICLP-DC 2010 — Sixth ICLP Doctoral Student Consortium, Edinburgh, Scotland, 21 July 2010: “Dynamic Magic Sets for Disjunctive Datalog Programs”;
- RCRA 2010 — 17th RCRA International Workshop, Bologna, Italy, 10–11 June 2010: “Well-Founded Semantics for Logic Programs with Aggregates: Implementation and Experimentation”;
- ICTCS '09 — 11th Italian Conference on Theoretical Computer Science, Cremona, Italy, 28–30 September 2009: “The Maze Generation Problem is NP-complete”;
- AI\*IA 2008 — 10-mo Convegno dell’Associazione Italiana per l’Intelligenza Artificiale, Cagliari, Italy, 11–13 September 2008: “Valutazione efficiente di aggregati ricorsivi in programmazione logica”;
- CILC 2008 — 23-esimo Convegno Italiano di Logica Computazionale, Perugia, Italy, 10–12 July 2008: “Compiling Minimum and Maximum Aggregates into Standard ASP”;
- CILC 2007 — 22-esimo Convegno Italiano di Logica Computazionale, Messina, Italy, 21–22 May 2007: “Using Unfounded Sets for Computing Answer Sets of Programs with Recursive Aggregates”.

## 9.2 Other attended conferences and workshops

I also attended the following conferences and workshops:

- AI\*IA 2015 — 14-mo Convegno dell’Associazione Italiana per l’Intelligenza Artificiale, Ferrara, Italy, 23–25 September 2015;
- ASPOCP 2014 — 7th Workshop on Answer Set Programming and Other Computing Paradigms, Vienna, Austria, 23 July 2014;
- GTTV’13 — Second Workshop on Grounding and Transformations for Theories with Variables, Corunna, Spain, 15 September 2013;
- ICLP-DC 2013 — Ninth ICLP Doctoral Student Consortium, Istanbul, Turkey, 24 August 2013;
- ASPOCP 2012 — 5th Workshop on Answer Set Programming and Other Computing Paradigms, Budapest, Unghery, 4 September 2012;
- WOA 2011 — Dodicesimo Workshop Nazionale “Dagli Oggetti agli Agenti,” Rende, Italia, 4–6 July 2011;
- GTTV’11 — First Workshop on Grounding and Transformations for Theories with Variables, Vancouver, Canada, 16 May 2011;
- Log-IC 2011 — Second International Workshop on Logic-Based Interpretation of Context: Modeling and Applications, Vancouver, Canada, 16 May 2011;
- ICLP 2010 — Twenty-sixth International Conference on Logic Programming, Edinburgh, Scotland, 16–19 July 2010;
- CILC 2010 — 25-esimo Convegno Italiano di Logica Computazionale, Rende, Italy, 7–9 July 2010;
- ASPOCP 2010 — 3rd Workshop on Answer Set Programming and Other Computing Paradigms, Edinburgh, Scotland, 20 July 2010.

## 10 Teaching activity

### 10.1 Professor activity

I am, or I was, Professor of the following courses:

- Knowledge Representation, Corso di Laurea Magistrale in Informatica, University of Calabria (6 CFU, 56 hours), 2020-2021;
- Secure Software Design, Corso di Laurea Magistrale in Informatica, University of Calabria (4 CFU, 32 hours), 2016-2017; (5 CFU, 44 hours), 2017-2018, 2018-2019; (6 CFU, 56 hours), 2019-2020, 2020-2021;
- Architettura dei Calcolatori, Corso di Laurea in Informatica, University of Calabria (3 CFU, 24 hours), 2020-2021;
- Knowledge Representation and Semantic Web, Corso di Laurea Magistrale in Informatica, University of Calabria (9 CFU, 84 hours), 2015-2016, 2016-2017, 2017-2018, 2018-2019, 2019-2020;
- Informatica applicata ai beni culturali, Corso di Laurea Magistrale in Archeologia, University of Calabria (6 CFU, 42 hours), 2015-2016; (3 CFU, 21 hours), 2013-2014, 2014-2015;
- Knowledge Management, Corso di Laurea Magistrale in Informatica, University of Calabria (10 CFU, 96 hours), 2013-2014, 2014-2015;
- Informatica, Corso di Laurea in Scienze dell'educazione, University of Calabria (6 CFU, 42 hours), 2010-2011, 2011-2012, 2012-2013.

### 10.2 Assistant Professor activity

I was Assistant Professor of the following courses:

- Programmazione a oggetti, Corso di Laurea in Informatica, University of Calabria (48 delle 96 ore del corso), 2010-2011, 2012-2013;
- Informatica teorica, Corso di Laurea Magistrale in Informatica, University of Calabria (48 delle 96 ore del corso), 2011-2012;
- Informatica, Corso di Laurea in Matematica, University of Calabria (48 delle 96 ore del corso), 2009-2010, 2010-2011;
- Fondamenti di programmazione, Corso di Laurea in Informatica, University of Calabria (24 delle 56 ore del corso), 2008-2009;
- Introduzione all'informatica, Faculty of Mathematical, Physical and Natural Sciences, University of Calabria (48 ore di esercitazione), 2008-2009.

### 10.3 Supervisor activity

I supervised the following theses:

- Arnel D. Zamayla, dottorando in Matematica e Informatica, ciclo XXXIII; gli studi del dottorando riguardano lo sviluppo di un sistema di ispezione sotto veicolo mediante la combinazione di reti neurali per il riconoscimento di immagini, answer set programming e fuzzy logic; progetto finanziato dal programma ERDT (Engineering Research and Development for Technology) di Mindanao State University – Iligan Institute of Technology (MSU-IIT) per un importo di 7.977.740,22 pesos filippine (circa 133.000 euro; in corso);
- Nicholas Laurenzano, “Design and validation of a convolutional neural network for age prediction” — Laurea Magistrale in Informatica, Università della Calabria, A.A. 2019–2020 (in corso);
- Alfredo Aloï, “Assistente DEMACS” — Laurea Triennale in Informatica, Università della Calabria, A.A. 2019–2020 (in corso);
- Andrea De Seta, “Game programming in Godot” — Laurea Triennale in Informatica, Università della Calabria, A.A. 2019–2020 (in corso);
- Antonio Arci, “Unity vs Godot: design and evaluation of benchmarks” — Laurea Triennale in Informatica, Università della Calabria, A.A. 2019–2020 (in corso);
- Francesco Corigliano, “Realizzazione di giochi in Godot” — Laurea Triennale in Informatica, Università della Calabria, A.A. 2019–2020 (in corso);
- Marco Grande, “Sviluppo di giochi 2d e 3d ed integrazione di intelligenze artificiali utilizzando Godot” — Laurea Triennale in Informatica, Università della Calabria, A.A. 2019–2020;
- Cosimo Tassitani, “Un assistente vocale per l’orario Unical realizzato con Skill Amazon Alexa” — Laurea Triennale in Informatica, Università della Calabria, A.A. 2019–2020;
- Alessia Bruno, “EASY, gestionale per la sicurezza alimentare e l’autocontrollo” — Laurea Triennale in Informatica, Università della Calabria, A.A. 2019–2020;
- Matteo Fazio, “Production tasks detection in a smart factory using Deep Learning” — Laurea Magistrale in Informatica, Università della Calabria, A.A. 2018–2019;
- Ivan Rimola, “Rappresentazione grafica di dati sperimentali in HTML5” — Laurea Triennale in Informatica, Università della Calabria, A.A. 2017–2018;
- Davide Gallo, “Navigatore dimensionale in HTML+” — Laurea Magistrale in Informatica, Università della Calabria, A.A. 2016–2017;
- Carmine Dodaro, “Computational Tasks in Answer Set Programming: Algorithms and Implementation” — Dottorato in Matematica e Informatica, Università della Calabria, XXVII ciclo (2012–2014);
- Bernardo Cuteri, “Benchmarking in ambiente Linux da specifiche dichiarative” — Laurea in Informatica, Università della Calabria, A.A. 2012–2013;
- Carmine Dodaro, “WASP: A new model generator” — Laurea Specialistica in Informatica, Università della Calabria, A.A. 2010–2011; awarded as the **Italian best thesis in Artificial Intelligence** by the Italian Association for Artificial Intelligence (AI\*IA, Associazione Italiana per l’Intelligenza Artificiale);



- Giulio Schiafone, “Realizzazione di un sistema per la gestione di sessioni di benchmark” — Laurea Specialistica in Informatica, Università della Calabria, A.A. 2010–2011;
- Carmelo D’Aparo, “Espressioni aritmetiche arbitrarie in Answer Set Programming, implementazione” — Laurea Specialistica in Ingegneria Informatica, Università della Calabria, A.A. 2007–2008;
- Fabrizio Corrente, “Sistema touch screen per documenti di trasporto e fatturazione nelle aziende” — Laurea in Informatica, Università della Calabria, A.A. 2008–2009.

## 11 Publications

### Journal papers

- J33. George Baryannis, Ilias Tachmazidis, Sotiris Batsakis, Grigoris Antoniou, Mario Alviano, and Emmanuel Papadakis.  
A generalised approach for encoding and reasoning with qualitative theories in answer set programming.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 2020.  
To appear
- J32. Mario Alviano, Carmine Dodaro, Joao Marques-Silva, and Francesco Ricca.  
Optimum stable model search: algorithms and implementation.  
*Journal of Logic and Computation* Oxford University Press, 30(4):863–897, 2020
- J31. Mario Alviano, Carmine Dodaro, Johannes Klaus Fichte, Markus Hecher, Tobias Philipp, and Jakob Rath.  
Inconsistency proofs for ASP: the ASP - DRUPE format.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 19(5-6):891–907, 2019
- J30. Mario Alviano, Nicola Leone, Pierfrancesco Veltri, and Jessica Zangari.  
Enhancing magic sets with an application to ontological reasoning.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 19(5-6):654–670, 2019
- J29. Mario Alviano and Carmine Dodaro.  
Model enumeration via assumption literals.  
*Fundamenta Informaticae*. IOS Press, 167(1-2):31–58, 2019
- J28. Mario Alviano.  
Argumentation reasoning via circumscription with pyglaf.  
*Fundamenta Informaticae*. IOS Press, 167(1-2):1–30, 2019
- J27. Mario Alviano, Gianluigi Greco, and Antonella Guzzo.  
Coalition formation in social environments with logic-based agents.  
*AI Communications*. IOS Press, 31(5):383–407, 2018

- J26. Mario Alviano.  
Algorithms for solving optimization problems in answer set programming.  
*Intelligenza Artificiale*. IOS Press, 12(1):1–14, 2018
- J25. Mario Alviano, Carmine Dodaro, and Marco Maratea.  
Nurse (re)scheduling via answer set programming.  
*Intelligenza Artificiale*. IOS Press, 12(2):109–124, 2018
- J24. Mario Alviano and Wolfgang Faber.  
Aggregates in answer set programming.  
*KI – Künstliche Intelligenz*. Springer, 32(2-3):119–124, 2018
- J23. Weronika T. Adrian, Mario Alviano, Francesco Calimeri, Bernardo Cuteri, Carmine Dodaro, Wolfgang Faber, Davide Fuscà, Nicola Leone, Marco Manna, Simona Perri, Francesco Ricca, Pierfrancesco Veltri, and Jessica Zangari.  
The ASP system DLV: advancements and applications.  
*KI – Künstliche Intelligenz*. Springer, 32(2-3):177–179, 2018
- J22. Mario Alviano, Carmine Dodaro, and Marco Maratea.  
Shared aggregate sets in answer set programming.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 18(3-4):301–318, 2018
- J21. Mario Alviano, Carmine Dodaro, Matti Järvisalo, Marco Maratea, and Alessandro Previti.  
Cautious reasoning in ASP via minimal models and unsatisfiable cores.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 18(3-4):319–336, 2018
- J20. George Baryannis, Ilias Tachmazidis, Sotiris Batsakis, Grigoris Antoniou, Mario Alviano, Timos Sellis, and Pei-Wei Tsai.  
A trajectory calculus for qualitative spatial reasoning using answer set programming.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 18(3-4):355–371, 2018
- J19. Mario Alviano.  
Model enumeration in propositional circumscription via unsatisfiable core analysis.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 17(5-6):708–725, 2017
- J18. Mario Alviano.  
Evaluating answer set programming with non-convex recursive aggregates.  
*Fundamenta Informaticae*. IOS Press, 149:1–34, 2016
- J17. Mario Alviano and Carmine Dodaro.  
Anytime answer set optimization via unsatisfiable core shrinking.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 16(5-6):533–551, 2016

- J16. Mario Alviano and Wolfgang Faber.  
Effectively solving NP-SPEC encodings by translation to ASP.  
*Journal of Experimental & Theoretical Artificial Intelligence* Taylor & Francis Online, 27(5):577–601, 2015
- J15. Mario Alviano, Wolfgang Faber, and Martin Gebser.  
Rewriting recursive aggregates in answer set programming: back to monotonicity.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 15(4-5):559–573, 2015
- J14. Mario Alviano and Nicola Leone.  
Complexity and compilation of gz-aggregates in answer set programming.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 15(4-5):574–587, 2015
- J13. Mario Alviano and Rafael Peñaloza.  
Fuzzy answer set computation via satisfiability modulo theories.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 15(4-5):588–603, 2015
- J12. Mario Alviano, Wolfgang Faber, and Stefan Woltran.  
Complexity of super-coherence problems in ASP.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 14(3):339–361, 2014
- J11. Mario Alviano, Carmine Dodaro, and Francesco Ricca.  
Anytime computation of cautious consequences in answer set programming.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 14(4-5):755–770, 2014
- J10. Mario Alviano and Rafael Peñaloza.  
Fuzzy answer sets approximations.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 13(4-5):753–767, 2013
- J9. Mario Alviano, Wolfgang Faber, Nicola Leone, and Marco Manna.  
Disjunctive datalog with existential quantifiers: Semantics, decidability, and complexity issues.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 12(4-5):701–718, 2012
- J8. Mario Alviano, Wolfgang Faber, Gianluigi Greco, and Nicola Leone.  
Magic sets for disjunctive datalog programs.  
*Artificial Intelligence*. Elsevier, 187–188:156–192, 2012

- J7. Francesco Ricca, Giovanni Grasso, Mario Alviano, Marco Manna, Vincenzino Lio, Salvatore Iiritano, and Nicola Leone.  
Team-building with answer set programming in the gioia-tauro seaport.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 12(3):361–381, 2012
- J6. Marco Manna, Massimo Ruffolo, Ermelinda Oro, Mario Alviano, and Nicola Leone.  
The HiLeX system for semantic information extraction.  
*Transactions on Large-Scale Data- and Knowledge-Centered Systems*. Springer Berlin/Heidelberg, Lecture Notes in Computer Science 7100:91–125, 2012
- J5. Mario Alviano.  
Efficient recursive aggregate evaluation in logic programming.  
*Intelligenza Artificiale*. IOS Press, 5(2):207–215, 2011
- J4. Mario Alviano, Francesco Calimeri, Wolfgang Faber, Simona Perri, and Nicola Leone.  
Unfounded sets and well-founded semantics of answer set programs with aggregates.  
*Journal of Artificial Intelligence Research*. AAAI Press, 42:487–527, 2011
- J3. Mario Alviano and Wolfgang Faber.  
Dynamic magic sets and super-coherent answer set programs.  
*AI Communications*. IOS Press, 24(2):125–145, 2011
- J2. Mario Alviano, Wolfgang Faber, and Nicola Leone.  
Disjunctive ASP with functions: Decidable queries and effective computation.  
*Theory and Practice of Logic Programming*. Cambridge University Press, 10(4–6):497–512, July 2010
- J1. Francesco Ricca, Mario Alviano, Antonella Dimasi, Giovanni Grasso, Salvatore Maria Ielpa, Salvatore Iiritano, Marco Manna, and Nicola Leone.  
A logic-based system for e-tourism.  
*Fundamenta Informaticae*. IOS Press, 105(1–2):35–55, 2010

### **Conferences and workshops papers with referee**

- C51. Mario Alviano and Carmine Dodaro.  
Data validation for answer set programming.  
In *Technical Communications of the 36th International Conference on Logic Programming, ICLP 2020, September 18–24, 2020, Rende, Italy.*, 2020
- C50. Mario Alviano.  
Answer set programming with composed predicate names.  
In Michael Thielscher, Diego Calvanese, and Esra Erdem, editors, *Principles of Knowledge Representation and Reasoning: Proceedings of the 17th International Conference, KR 2020, Rhodes, Greece, 12–18 September 2020*. AAAI Press, 2020

- C49. Nicola Leone, Carlo Allocca, Mario Alviano, Francesco Calimeri, Cristina Civili, Roberta Costabile, Bernardo Cuteri, Alessio Fiorentino, Davide Fuscà, Stefano Germano, Giovanni Labocchetta, Marco Manna, Simona Perri, Kristian Reale, Francesco Ricca, Pierfrancesco Veltri, and Jessica Zangari.  
Large scale DLV: preliminary results.  
In Alberto Casagrande and Eugenio G. Omodeo, editors, *Proceedings of the 34th Italian Conference on Computational Logic, Trieste, Italy, June 19-21, 2019.*, volume 2396 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2019
- C48. Mario Alviano, Javier Romero, and Torsten Schaub.  
On the integration of cp-nets in ASPRIN.  
In Sarit Kraus, editor, *Proceedings of the Twenty-Eighth International Joint Conference on Artificial Intelligence, IJCAI 2019, Macao, China, August 10-16, 2019*, pages 1495–1501. ijcai.org, 2019
- C47. Mario Alviano and Wolfgang Faber.  
Chain answer sets for logic programs with generalized atoms.  
In Francesco Calimeri, Nicola Leone, and Marco Manna, editors, *Logics in Artificial Intelligence - 16th European Conference, JELIA 2019, Rende, Italy, May 7-11, 2019, Proceedings*, volume 11468 of *Lecture Notes in Computer Science*, pages 462–478. Springer, 2019
- C46. Mario Alviano, Giovanni Amendola, Carmine Dodaro, Nicola Leone, Marco Maratea, and Francesco Ricca.  
Evaluation of disjunctive programs in WASP.  
In Marcello Balduccini, Yuliya Lierler, and Stefan Woltran, editors, *Logic Programming and Nonmonotonic Reasoning - 15th International Conference, LPNMR 2019, Philadelphia, PA, USA, June 3-7, 2019, Proceedings*, volume 11481 of *Lecture Notes in Computer Science*, pages 241–255. Springer, 2019
- C45. Nicola Leone, Carlo Allocca, Mario Alviano, Francesco Calimeri, Cristina Civili, Roberta Costabile, Alessio Fiorentino, Davide Fuscà, Stefano Germano, Giovanni Labocchetta, Bernardo Cuteri, Marco Manna, Simona Perri, Kristian Reale, Francesco Ricca, Pierfrancesco Veltri, and Jessica Zangari.  
Enhancing DLV for large-scale reasoning.  
In Marcello Balduccini, Yuliya Lierler, and Stefan Woltran, editors, *Logic Programming and Nonmonotonic Reasoning - 15th International Conference, LPNMR 2019, Philadelphia, PA, USA, June 3-7, 2019, Proceedings*, volume 11481 of *Lecture Notes in Computer Science*, pages 312–325. Springer, 2019
- C44. Carlo Allocca, Mario Alviano, Francesco Calimeri, Cristina Civili, Roberta Costabile, Bernardo Cuteri, Alessio Fiorentino, Davide Fuscà, Stefano Germano, Giovanni Labocchetta, Nicola Leone, Marco Manna, Simona Perri, Kristian Reale, Francesco Ricca, Pierfrancesco Veltri, and Jessica Zangari.  
Querying large expressive horn ontologies.  
In Massimo Mecella, Giuseppe Amato, and Claudio Gennaro, editors, *Proceedings of the 27th Italian Symposium on Advanced Database Systems, Castiglione della Pescaia (Grosseto), Italy, June 16-19, 2019.*, volume 2400 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2019

- C43. Mario Alviano.  
 Query answering in propositional circumscription.  
 In Jérôme Lang, editor, *Proceedings of the Twenty-Seventh International Joint Conference on Artificial Intelligence, IJCAI 2018, July 13-19, 2018, Stockholm, Sweden.*, pages 1669–1675. ijcai.org, 2018
- C42. Mario Alviano, Javier Romero, and Torsten Schaub.  
 Preference relations by approximation.  
 In Michael Thielscher, Francesca Toni, and Frank Wolter, editors, *Principles of Knowledge Representation and Reasoning: Proceedings of the Sixteenth International Conference, KR 2018, Tempe, Arizona, 30 October - 2 November 2018.*, pages 2–11. AAAI Press, 2018
- C41. Paul Saikko, Carmine Dodaro, Mario Alviano, and Matti Järvisalo.  
 A hybrid approach to optimization in answer set programming.  
 In Michael Thielscher, Francesca Toni, and Frank Wolter, editors, *Principles of Knowledge Representation and Reasoning: Proceedings of the Sixteenth International Conference, KR 2018, Tempe, Arizona, 30 October - 2 November 2018.*, pages 32–41. AAAI Press, 2018
- C40. Mario Alviano.  
 Ingredients of the argumentation reasoner pyglaf: Python, circumscription, and glucose to taste.  
 In Marco Maratea and Ivan Serina, editors, *Proceedings of the 24th RCRA International Workshop on Experimental Evaluation of Algorithms for Solving Problems with Combinatorial Explosion 2017 co-located with the 16th International Conference of the Italian Association for Artificial Intelligence (AI\*IA 2017), Bari, Italy, November 14-15, 2017.*, volume 2011 of *CEUR Workshop Proceedings*, pages 1–16. CEUR-WS.org, 2017
- C39. Mario Alviano, Carmine Dodaro, and Marco Maratea.  
 An advanced answer set programming encoding for nurse scheduling.  
 In Floriana Esposito, Roberto Basili, Stefano Ferilli, and Francesca A. Lisi, editors, *AI\*IA 2017 Advances in Artificial Intelligence - XVIIth International Conference of the Italian Association for Artificial Intelligence, Bari, Italy, November 14-17, 2017, Proceedings*, volume 10640 of *Lecture Notes in Computer Science*, pages 468–482. Springer, 2017
- C38. Mario Alviano.  
 The pyglaf argumentation reasoner.  
 In Ricardo Rocha, Tran Cao Son, Christopher Mears, and Neda Saeedloei, editors, *Technical Communications of the 33rd International Conference on Logic Programming, ICLP 2017, August 28 to September 1, 2017, Melbourne, Australia*, volume 58 of *OASICS*, pages 2:1–2:3. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2017
- C37. Mario Alviano and Carmine Dodaro.  
 Unsatisfiable core shrinking for anytime answer set optimization.  
 In Carles Sierra, editor, *Proceedings of the Twenty-Sixth International Joint Conference on Artificial Intelligence, IJCAI 2017, Melbourne, Australia, August 19-25, 2017*, pages 4781–4785. ijcai.org, 2017

- C36. Mario Alviano, Francesco Calimeri, Carmine Dodaro, Davide Fuscà, Nicola Leone, Simona Perri, Francesco Ricca, Pierfrancesco Veltri, and Jessica Zangari.  
The ASP system DLV2.  
In Marcello Balduccini and Tomi Janhunen, editors, *Logic Programming and Nonmonotonic Reasoning - 14th International Conference, LPNMR 2017, Espoo, Finland, July 3-6, 2017, Proceedings*, volume 10377 of *Lecture Notes in Computer Science*, pages 215–221. Springer, 2017
- C35. Mario Alviano, Michael Morak, and Andreas Pieris.  
Stable model semantics for tuple-generating dependencies revisited.  
In Emanuel Sallinger, Jan Van den Bussche, and Floris Geerts, editors, *Proceedings of the 36th ACM SIGMOD-SIGACT-SIGAI Symposium on Principles of Database Systems, PODS 2017, Chicago, IL, USA, May 14-19, 2017*, pages 377–388. ACM, 2017
- C34. Mario Alviano, Giovanni Amendola, and Rafael Peñaloza.  
Minimal undefinedness for fuzzy answer sets.  
In Satinder P. Singh and Shaul Markovitch, editors, *Proceedings of the Thirty-First AAAI Conference on Artificial Intelligence, February 4-9, 2017, San Francisco, California, USA.*, pages 3694–3700. AAAI Press, 2017
- C33. Mario Alviano and Carmine Dodaro.  
Answer set enumeration via assumption literals.  
In Giovanni Adorni, Stefano Cagnoni, Marco Gori, and Marco Maratea, editors, *AI\*IA 2016: Advances in Artificial Intelligence - XVth International Conference of the Italian Association for Artificial Intelligence, Genova, Italy, November 29 - December 1, 2016, Proceedings*, volume 10037 of *Lecture Notes in Computer Science*, pages 149–163. Springer, 2016
- C32. Mario Alviano, Wolfgang Faber, and Hannes Strass.  
Boolean functions with ordered domains in answer set programming.  
In Dale Schuurmans and Michael P. Wellman, editors, *Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence, February 12-17, 2016, Phoenix, Arizona, USA.*, pages 879–885. AAAI Press, 2016
- C31. Mario Alviano and Carmine Dodaro.  
Completion of disjunctive logic programs.  
In Subbarao Kambhampati, editor, *Proceedings of the Twenty-Fifth International Joint Conference on Artificial Intelligence, IJCAI 2016, New York, NY, USA, 9-15 July 2016*, pages 886–892. IJCAI/AAAI Press, 2016
- C30. Mario Alviano, Wolfgang Faber, and Martin Gebser.  
From non-convex aggregates to monotone aggregates in ASP.  
In Subbarao Kambhampati, editor, *Proceedings of the Twenty-Fifth International Joint Conference on Artificial Intelligence, IJCAI 2016, New York, NY, USA, 9-15 July 2016*, pages 4100–4194. IJCAI/AAAI Press, 2016

- C29. Mario Alviano and Nicola Leone.  
On the properties of gz-aggregates in answer set programming.  
In Subbarao Kambhampati, editor, *Proceedings of the Twenty-Fifth International Joint Conference on Artificial Intelligence, IJCAI 2016, New York, NY, USA, 9-15 July 2016*, pages 4105–4109. IJCAI/AAAI Press, 2016
- C28. Mario Alviano and Wolfgang Faber.  
Supportedly stable answer sets for logic programs with generalized atoms.  
In Balder ten Cate and Alessandra Mileo, editors, *Web Reasoning and Rule Systems - 9th International Conference, RR 2015, Berlin, Germany, August 4-5, 2015, Proceedings*, volume 9209 of *Lecture Notes in Computer Science*, pages 30–44. Springer, 2015
- C27. Mario Alviano and Andreas Pieris.  
Default negation for non-guarded existential rules.  
In Tova Milo and Diego Calvanese, editors, *Proceedings of the 34th ACM Symposium on Principles of Database Systems, PODS 2015, Melbourne, Victoria, Australia, May 31 - June 4, 2015*, pages 79–90. ACM, 2015
- C26. Mario Alviano, Carmine Dodaro, Nicola Leone, and Francesco Ricca.  
Advances in WASP.  
In Francesco Calimeri, Giovambattista Ianni, and Mirosław Truszczynski, editors, *Logic Programming and Nonmonotonic Reasoning - 13th International Conference, LPNMR 2015, Lexington, KY, USA, September 27-30, 2015. Proceedings*, volume 9345 of *Lecture Notes in Computer Science*, pages 40–54. Springer, 2015
- C25. Mario Alviano and Wolfgang Faber.  
Stable model semantics of abstract dialectical frameworks revisited: A logic programming perspective.  
In Qiang Yang and Michael Wooldridge, editors, *Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2015, Buenos Aires, Argentina, July 25-31, 2015*, pages 2684–2690. AAAI Press, 2015
- C24. Mario Alviano, Carmine Dodaro, and Francesco Ricca.  
A maxsat algorithm using cardinality constraints of bounded size.  
In Qiang Yang and Michael Wooldridge, editors, *Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2015, Buenos Aires, Argentina, July 25-31, 2015*, pages 2677–2683. AAAI Press, 2015
- C23. Mario Alviano, Carmine Dodaro, and Francesco Ricca.  
JWASP: A new java-based ASP solver.  
In Stefano Bistarelli, Andrea Formisano, and Marco Maratea, editors, *Proceedings of the 22nd RCRA International Workshop on Experimental Evaluation of Algorithms for Solving Problems with Combinatorial Explosion 2015 (RCRA 2015) A workshop of the XIV International Conference of the Italian Association for Artificial Intelligence (AI\*IA 2015), Ferrara, Italy, September 22, 2015.*, volume 1451 of *CEUR Workshop Proceedings*, pages 16–23. CEUR-WS.org, 2015



- C22. Mario Alviano.  
Evaluating answer set programming with non-convex recursive aggregates.  
In Stefano Bistarelli, Andrea Formisano, and Marco Maratea, editors, *Proceedings of the 22nd RCRA International Workshop on Experimental Evaluation of Algorithms for Solving Problems with Combinatorial Explosion 2015 (RCRA 2015) A workshop of the XIV International Conference of the Italian Association for Artificial Intelligence (AI\*IA 2015), Ferrara, Italy, September 22, 2015.*, volume 1451 of *CEUR Workshop Proceedings*, pages 1–15. CEUR-WS.org, 2015
- C21. Mario Alviano, Carmine Dodaro, Joao Marques-Silva, and Francesco Ricca.  
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