

Curriculum Vitae¹

Dr. Stefan WOLTRAN

1 Personal Data

Degrees: Univ.Prof., Dipl.-Ing. (M.Sc.), Dr.techn. (Ph.D.)
Date and place of birth: January 8, 1975, Mödling (Austria)
Citizenship: Austrian citizen
Marital status: unmarried, no children
Current position: Full Professor “Formal Foundations of Artificial Intelligence”
Office and Mailing Address: Institute of Logic and Computation
Databases and Artificial Intelligence Group
TU Wien (Vienna University of Technology)
Favoritenstraße 9-11, A-1040 Vienna, Austria
Office Phone: +43 1 58801 18429
E-mail: woltran@dbai.tuwien.ac.at
WWW: <http://www.dbai.tuwien.ac.at/staff/woltran>

2 Education

2008: Habilitation colloquium (for the *venia docendi* in “Information Systems”). Thesis: *Contributions to Advanced Equivalence Checking in Answer Set Programming*.
2001 – 2003: Doctoral Student of Computer Science at TU Wien.
Promotion as a Doctor *technicae* (Ph.D.) with distinction.
Thesis: *Quantified Boolean Formulas - From Theory to Practice*;
(Advisors: Prof. Dr. Uwe Egly and Prof. Dr. Thomas Eiter).
1994 – 2001: Student of Computer Science at TU Wien;
graduation as a Master of Science (M.Sc.) with distinction.
Thesis: *A Framework for Solving Advanced Reasoning Tasks*;
(Advisor: Prof. Dr. Uwe Egly).

3 Professional Record

since 02/2015: Full Professor at the Institute of Logic and Computation,
(formerly Institute of Information Systems),
Databases and Artificial Intelligence Group (DBAI), TU Wien.
10/2013 – 02/2014: Deputy Professor at the Institute of Computer Science (Algebraic and
Logical Foundations of Computer Science) at the University of Leipzig.
07/2013 – 01/2015: Associate Professor at the Institute of Information Systems, DBAI, TU Wien.
06/2007 – 07/2013: Assistant Professor (Univ.Ass.), Institute of Information Systems, DBAI, TU Wien.
07/2001 – 05/2007: Research assistant at the Institute of Information Systems,
Knowledge-Based Systems Group (KBS), TU Wien.
06/2003 – 10/2003: Assistant Professor (interim; Univ.Ass.), KBS, TU Wien.

¹CV in German is available under <http://www.dbai.tuwien.ac.at/staff/woltran/>.

4 Project Experience

- **Project leader** (together with G. Brewka):
Advanced Tools for Graph-Based Formal Argumentation;
funded by *DFG – Deutsche Forschungsgemeinschaft* and
FWF – Fonds zur Förderung der wissenschaftlichen Forschung (I2854);
Project start: September 2016. EUR 450,000.
- **Project leader**:
Decodyn: Treating Hard Problems with Decomposition and Dynamic Programming;
funded by *FWF – Fonds zur Förderung der wissenschaftlichen Forschung*
(START Programme / Y698);
Project start: June 2014. EUR 1,200,000.
- **Faculty member**:
Logical Methods in Computer Science;
funded by *FWF – Fonds zur Förderung der wissenschaftlichen Forschung*
(Doctoral College / W1255);
Period Oct 2018–Sept 2022. EUR 200,000.
- **Project leader**:
Fragment-Driven Belief Change;
funded by *FWF – Fonds zur Förderung der wissenschaftlichen Forschung* (P25521);
May 2013–December 2017. EUR 349,000.
- **Project leader**:
Extending the Answer-Set Programming Paradigm to Decomposed Problem Solving;
funded by *FWF – Fonds zur Förderung der wissenschaftlichen Forschung* (P25607);
June 2013–June 2017. EUR 280,000.
- **Project leader** (together with G. Brewka):
Abstract Dialectical Frameworks: Advanced Tools for Formal Argumentation;
funded by *DFG – Deutsche Forschungsgemeinschaft* and
FWF – Fonds zur Förderung der wissenschaftlichen Forschung (I1102);
June 2013–December 2016. EUR 470,000.
- **Project leader**:
New Methods for Analyzing, Comparing, and Solving Argumentation Problems;
funded by *WWTF – Wiener Wissenschafts-, Forschungs- und Technologiefonds* (ICT 08-028);
April 2009–October 2012. EUR 280,000.
- **Project leader**:
dynASP - Dynamic Programming and Answer Set Programming;
funded by *TU Wien Programme “Innovative Ideen”* (9006.09/008);
March 2011–July 2014. EUR 90,000.

- **Coordinator:**
New Directions in Abstract Argumentation; bilateral project Austria/Slovakia;
funded by *Slovenská akademická informaná agentúra (SAIA)* and *Österreichischer Austauschdienst (ÖAD)*; project number 2012-03-15-0001;
Partner: Jozef Siška, Comenius Univ. Bratislava.
September 2012–August 2013. EUR 2,000.
- **Coordinator:**
Complexity of Argumentation; bilateral project Austria/France;
funded by *Österreichischer Austauschdienst (ÖAD)*, *Programme Amadée* (FR 17/2011);
Partner: Nadia Creignou, Univ. Marseille;
January 2011–December 2012. EUR 12,000.
- **Collaborator:**
EMBArg: Extending Methods in Belief Change to Advance Dynamics in Argumentation;
funded by *FWF – Fonds zur Förderung der wissenschaftlichen Forschung* (P30168);
Project Start: April 2017. EUR 350,000.
- **Collaborator:**
FAIR: Fixed-Parameter Tractability in Artificial Intelligence and Reasoning;
funded by *FWF – Fonds zur Förderung der wissenschaftlichen Forschung* (P25518);
May 2013–April 2018. EUR 350,000.
- **Collaborator:**
SEE: SPARQL Evaluation and Extensions;
funded by *WWTF – Wiener Wissenschafts-, Forschungs- und Technologiefonds* (ICT 12-015);
September 2012–September 2016. EUR 500,000.
- **Collaborator:**
Towards Tractable Belief Merging; bilateral project Austria/France;
funded by *Österreichischer Austauschdienst (ÖAD)*, *Programme Amadée* (FR 12/2013);
January 2013–December 2014.
- **Collaborator:**
Service-Oriented Data Integration;
funded by *WWTF – Wiener Wissenschafts-, Forschungs- und Technologiefonds* (ICT 080-032);
April 2009–September 2012.
- **Collaborator:**
Turning Theoretical Tractability into Efficient Computation via Datalog;
funded by *FWF – Fonds zur Förderung der wissenschaftlichen Forschung* (P20704);
September 2008–August 2012.
- **Main responsible project assistant:**
Formal Methods for Comparing and Optimizing Nonmonotonic Logic Programs;
funded by *FWF – Fonds zur Förderung der wissenschaftlichen Forschung* (P18019);
April 2005–May 2008.

- Responsible for proposal and coordination at TU Wien:
Optimizing Logic Programs under the Answer-Set Programming Paradigm;
bilateral project Slovakia – Austria; funded by *Slovenská akademická informaná agentúra (SAIA)* and *Österreichischer Austauschdienst (ÖAD)*;
November 2003–December 2004.
- Responsible for coordination at node TU Wien: *WASP: Working Group on Answer Set Programming*;
funded by *European Commission (IST-FET-2001-37004)*;
September 2002–September 2005.
- Main responsible project assistant:
QUIP: A Computational Framework for Advanced Reasoning Tasks;
funded by *FWF – Fonds zur Förderung der wissenschaftlichen Forschung (P15068)*;
July 2001–October 2004.

5 Research Visits

- October 2013–February 2014: Deputy Professor, Univ. Leipzig, Germany.
- October–December 2009: Prof. Gerhard Brewka, Univ. Leipzig, Germany.
- July 2009: Prof. James Delgrande, Simon Fraser University, Canada.
- August 2004/November 2005/December 2007: Prof. Torsten Schaub, Univ. Potsdam, Germany.
- October 2005/February 2007: Prof. David Pearce, Univ. Rey Juan Carlos, Madrid, Spain.
- June 2005: Prof. Nicola Leone, Università della Calabria, Italy.

6 Awards and Honors

- Fellow of the European Association for Artificial Intelligence (since 2018).
- 2013: **FWF START** Award.
- 13th International Conference on Principles of Knowledge Representation and Reasoning (KR'12):
“**distinguished student paper prize**”.
- 4th International Conference on Web Reasoning and Rule Systems (RR'10):
“**best paper award**”.
- 3rd International Conference on Computational Models of Argument (COMMA'10):
“**best student-paper award**” for a joint paper with my PhD student Sarah Alice Gaggl.
- Workshop of the European Working group on Answer Set Programming (ASP'05):
“**best implementation-paper award**”.
- 2002: **OCG-Förderpreis 2002**, an award for outstanding master theses in the field of Computer Science granted by the Austrian Computer Society (OCG).

- 2001: Research scholarship, TU Wien.
- 2001: Windhagstipendium des Landes Niederösterreich (Lower Austrian scholarship).
- 2000: Research scholarship, TU Wien.

7 Professional Service

- Steering Committee member of *Principles of Knowledge Representation and Reasoning, Incorporated (KR, Inc.)* 2012–2016, *COMMA – Computational Models of Argument*, and *International Workshops on Nonmonotonic Reasoning (NMR)*. Full member of the *Wolfgang Pauli Institute (WPI) Vienna*.
- Program Co-Chair: *14th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR 2019)*, Philadelphia, USA; *10th International Symposium on Foundations of Information and Knowledge Systems (FoIKS 2018)*, Budapest, Hungary; *14th International Workshop on Non-Monotonic Reasoning (NMR 2012)*, Rome, Italy.
- Editorial Board: *Argument & Computation*, *Journal of Artificial Intelligence Research (JAIR)*.
- Area Editor: Newsletter of the Association for Logic Programming (2012–2013).
- Local Board Member: Vienna Center for Logic and Algorithms (VCLA).
- Co-Chair/Local Chair of several conferences and events including: *2nd International Workshop on Trends and Applications of Answer Set Programming (TAASP'18)*, *2nd International Competition on Computational Models of Argumentation (ICCMA'17)*, *1st International Workshop on New Trends in Formal Argumentation (NTFA'17)*, *ÖGAI Award 2013–2016*, *1st International Workshop on Trends and Applications of Answer Set Programming (TAASP'16)*, *1st International Workshop on New Trends in Belief Change (NTBC'16)*, *14th International Conference on Principles of Knowledge Representation and Reasoning (KR'14)*, *14th International Workshop on Computational Logic in Multi-Agent Systems (CLIMA XIV)*, *3rd International Workshop on Graph Structures for Knowledge Representation and Reasoning (GKR'13)*, *International Conference on Computational Models of Argument (COMMA'12)*, *Doctoral Consortium on Logic Programming at ICLP'12 and ICLP'11*, *Workshops on Answer Set Programming and Other Computing Paradigms (ASPOCP'11, ASPOCP'10)*, *MFCS/CSL Satellite Workshop on Parameterized Complexity of Computational Reasoning (PCCR'10)*, *LPNMR-Workshop on Correspondence and Equivalence for Nonmonotonic Theories (CENT)*, and *Workshop on Logic Programming (WLP'06)*.
- Aera-Chair/Senior PC-member: *27th International Joint Conference on Artificial Intelligence (IJCAI 2018)*, *16th International Conference on Principles of Knowledge Representation and Reasoning (KR 2018)*, *26th International Joint Conference on Artificial Intelligence (IJCAI 2017)*, *15th International Conference on Principles of Knowledge Representation and Reasoning (KR 2016)*, *24th International Joint Conference on Artificial Intelligence (KR Track) (IJCAI 2015)*, *21st European Conference on Artificial Intelligence (ECAI 2014)*.
- Workshop Chair: *34th International Conference on Logic Programming (ICLP 2018)*.

- PC-member for several international conferences including: *International Joint Conference on Artificial Intelligence (IJCAI)*, *European Conference on Artificial Intelligence (ECAI)*, *AAAI Conference on Artificial Intelligence (AAAI)*, *International Symposium on Theoretical Aspects of Computer Science (STACS)*, *International Conference on Principles of Knowledge Representation and Reasoning (KR)*, *International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR)*, *International Conference on Logic Programming (ICLP)*, *European Conference on Logics in Artificial Intelligence (JELIA)*, *European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU)*, *International Conference on Scalable Uncertainty Management (SUM)*, *International Symposium on Foundations of Information and Knowledge Systems (FoIKS)*, *International Conference on Computational Models of Argument (COMMA)*, *International Conference on Algorithmic Decision Theory (ADT)*, *ACM SIGAPP Symposium On Applied Computing (SAC)*, *International Symposium on Practical Aspects of Declarative Languages (PADL)*, *German Conference on Artificial Intelligence (KI)*, *European Starting AI Researcher Symposium (STAIRS)*, *Chinese Conference on Logic and Argumentation (CLAR)*, *International Conference on Industrial, Engineering, Other Applications of Applied Intelligent Systems (IEA/AIE)*, *EPIA Conference on Artificial Intelligence (EPIA)*, *Global Conference on Artificial Intelligence (GCAI)*, *International Workshop on Computational Logic in Multi-Agent Systems (CLIMA)*, *International Symposium on Artificial Intelligence and Mathematics (ISAIM)*, *International Conference on Conceptual Structures (ICCS)*, *International Conference on Agents and Artificial Intelligence (ICAART)*, *Italian Conference on Computational Logic (CILC)*.
- Reviewing for journals such as *Artificial Intelligence (AIJ)*, *ACM Transactions on Computational Logic*, *Fundamenta Informaticae (FI)*, *Annals of Mathematics and Artificial Intelligence (AMAI)*, *Journal of Artificial Intelligence Research (JAIR)*, *Theory and Practice of Logic Programming (TPLP)*, *The Knowledge Engineering Review (KER)*, *Journal of Applied Non-Classical Logics (JANCL)*, *Semantic Web Journal*, *International Journal of Approximate Reasoning (IJAR)*, *AI Magazine*, *AI Communications (AICOM)*, *Journal of Logic and Computation (JLC)*, *IfCoLog Journal of Logics and their Applications*, *Information Sciences*, *Argument and Computation*, *Journal of Computer Science and Technology (JCST)*, *Journal of Philosophical Logic*, and *Journal of Experimental & Theoretical Artificial Intelligence (JETAI)*; and for *Mathematical Reviews*.
- Reviewing for agencies and publishers including *DFG (Deutsche Forschungsgemeinschaft)*, *GIF (German-Israeli Foundation for Scientific Research and Development)*, *NSERC (Natural Sciences and Engineering Research Council of Canada)*, *ANR (Agence nationale de la recherche)*, *FWO (The Research Foundation - Flanders)*, *Cambridge University Press*, and the *National Agency for the Evaluation of Universities and Research Institutes (ANVUR)*.

8 Invited Talks, Lectures, and Panel Discussions

- *Solving (Q)SAT Problems via Tree Decomposition and Dynamic Programming*. JIAF/JFPC 2018, Amiens, France, June 2018.
- *Big Data – Little Intelligence?* Horn, Austria, May 2018.
- *Expressibility of Argumentation Frameworks and its Relation to the Dynamics of Argumentation* AMANDE Workshop, Toulouse, France, April 2018.

- *AI Technology – New Trends, Old Fears?* Hypernormal Hybrids, Vienna, Austria, November 2017.
- *Towards Preprocessing for Abstract Argumentation Frameworks.* 4th International Workshop on Defeasible and Ampliative Reasoning (DARe 2017), Espoo, Finland, July 2017.
- *Panel Discussion / 1st International Workshop on Practical Aspects of Answer Set Programming (PAoASP 2017),* Espoo, Finland, July 2017.
- *Towards Advanced Systems for Abstract Argumentation.* 1st International Workshop on Systems and Algorithms for Formal Argumentation (SAFA 2016), Potsdam, Germany, September 2016.
- *Dynamic Programming on Tree Decompositions in Practice.* 8th European Starting AI Researcher Symposium (STAIRS 2016), The Hague, Netherlands, August 2016.
- *Dynamic Programming on Tree Decompositions in Practice. Some Lessons Learned.* 17th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC 2015), Timisoara, Romania, September 2015.
- *On Rejected Arguments and Implicit Conflicts: The Hidden Power of Argumentation Semantics.* Workshop on Change in Argumentation (WCiA@CRIL), Lens, France, September 2015.
- *Comparing the Power of Different Semantics for Abstract Argumentation.* Workshop on the Dynamics of Argumentation, Rules and Conditionals (DARC 2014), Luxembourg, October 2014.
- *Abstract Argumentation – All Problems Solved?* Frontiers of Artificial Intelligence / European Conference on Artificial Intelligence (ECAI 2014). Prague, Czech Republic, August 2014.
- *ASP-based Problem Solving on Tree Decompositions.* Workshop on Logic and Search – LaSh 2014. Vienna, Austria, July 2014.
- *An Introduction to Abstract Argumentation.* ProvenanceWeek 2014 / 6th USENIX Workshop on the Theory and Practice of Provenance. Cologne, Germany, June 2014.
- *Characteristics of Multiple Viewpoints in Abstract Argumentation.* Research Seminar of the DFG Graduate Programme on Quantitative Logics and Automata. Univ. Leipzig, January 2014.
- *Implementation of Argumentation.* ACAI (Advanced Courses in AI) Summer School 2013. King's College London, July 2013.
- *On the Limits of Expressiveness in Abstract Argumentation Semantics.* Dagstuhl Seminar Nr. 13231 “Belief Change and Argumentation in Multi-Agent Scenarios”, Dagstuhl, June 2013.
- *Characteristics of Argumentation Semantics.* “Logique à Marseille – Camilla Schwind à l’honneur”. Marseille, December, 2012.
- *Complexity-Sensitive Decision Procedures for Abstract Argumentation.* “International Workshop on Formal, Experimental, and Informal Approaches to Argumentation” (FEI2A). Toulouse, May, 2012.
- *Belief Revision within Fragments of Propositional Logic.* Madeira Workshop on “Belief Revision and Argumentation”. Madeira, January 2012.

- *Panel Discussion / 1st International Workshop on the Theory and Applications of Formal Argumentation (TAFA'11)*. Barcelona, July 2011.
- *Computational Aspects of Formal Argumentation*. TU Dresden. Candidate Lecture. Dresden, March 2011.
- *Computational Aspects of Abstract Argumentation*. Helsinki Graduate School in Computer Science and Engineering. Invited Lecture. Helsinki, September 2010.
- *Strong Equivalence in Argumentation (and other KR-Formalisms)*. 11th International Workshop on Computational Logic in Multi-Agent Systems. Invited Talk. Lisbon, August 2010.
- *Deciding Equivalence between Extended Datalog Programs. A Brief Survey*. Datalog 2.0 Workshop, Oxford, U.K., March 2010.
- *Belief Revision with Bounded Treewidth*. Dagstuhl Seminar Nr. 09351 “Information Processing, Rational Belief Change and Social Interaction”, Dagstuhl, August 2009.
- *“In der Informatik geht es genau so wenig um Computer, wie in der Astronomie um Teleskope”*. Invited talk for the event “20 Jahre EDVO-Abteilung in der HTL Wr. Neustadt”, April 2008.
- *On Solution Correspondences in Answer Set Programming: A General Framework (and Characterizations for the Ground Case)*. Dagstuhl Seminar Nr. 05171 “Nonmonotonic Reasoning, Answer Set Programming and Constraints”, Dagstuhl, April 2005.
- *Paraconsistent Reasoning via QBFs*. Dagstuhl Seminar Nr. 03241 “Inconsistency Tolerance”, Dagstuhl, May 2003.
- *On Implementing Nested Logic Programs*. Dagstuhl Seminar Nr. 02381 “Nonmonotonic Reasoning, Answer Set Programming and Constraints”, Dagstuhl, September 2002.

9 University Services

Unless stated otherwise, the following positions all refer to TU Wien.

- Member of the *Board of the Faculty* of computer science.
- Member of the *Curricular Committee* of computer Science.
- Head of the search committee for a chair in non-classical logics in computer science.
- Member of the search committee for a chair in computer-aided verification (2008,2018) and machine learning (2018).
- Reviewer for habilitations: R. Ganian; M. Homola (Comenius University Bratislava).
- Member in several habilitation committees.
- Reviewer/Board Member (External) for PhD Theses:
 - Thomas Krennwaller, TU Wien. October 2018.
 - Martin Baláž, Comenius University, Bratislava. August 2017.

- Gonca Güllü, Universidade Nova de Lisboa, April 2016.
- Jean-Guy Mailly, Université d' Artois, Lens. September 2015.
- Jozef Frtús, Comenius University, Bratislava. September 2014.
- Federico Cerutti, Università degli Studi di Brescia. April 2012.
- Marco Sirianni, Università degli Studi della Calabria, Rende. February 2012.
- Roberto Confalonieri, Universitat Politècnica de Catalunya, Barcelona. December 2011.
- Jozef Siška, Comenius University, Bratislava. November 2010.

10 Teaching Experience

Unless stated otherwise, courses refer to TU Wien.

Lectures/Courses

- “Logic” (2.0h per week), Univ. of Leipzig, winter term (WT) 13/14.
- “Semi-structured Data” (2.0h). Undergraduate course with practical exercises for around 400 students per year; summer term (ST) 08 – ST14.
- “Formal Methods in Computer Science” (4.0h, WT+ST), with Uwe Egly, Gernot Salzer, Helmut Veith, Georg Weissenbacher; since WT14/15.
- “Deductive Databases” (2.0h, WT); WT05/06–WT14/15.
- “Preferences in Artificial Intelligence” (2.0h, ST), with Martin Lackner, ST 15–ST17.
- “Abstract Argumentation” (3.0h, WT), with Uwe Egly, Wolfgang Dvořák, Sarah Gaggl, Johannes Wallner, Thomas Linsbichler; since WT11/12.
- “Introduction to Logical Methods”; WT18.
- Seminar “Principles of Scientific Work” (2.0h). Undergraduate course for beginners; ST10, ST11, ST13.
- “Complexity Analysis in Knowledge Representation”. Comenius University Bratislava, WT13.
- “Knowledge Representation” (2.0h, WT), with Prof. Gerhard Brewka, Univ. of Leipzig. WT09/10; WT13/14.
- Seminar “Intelligent Systems” (2.0h, WT) with Prof. Gerhard Brewka, Univ. of Leipzig. WT13/14.
- Seminar “Formal Models of Argumentation” (2.0h, WT) with Prof. Gerhard Brewka, Univ. of Leipzig. WT09/10.
- “Logics for Knowledge Representation” (2.0h, ST), with Hans Tompits, ST05–ST07.
- Exercises for the course “Introduction to Knowledge-based Systems” (1.0h, ST), with Michael Fink, ST03.
- Various seminars on logic, AI, etc.

Teaching Assistant

- “Logic-oriented Programming Languages” (2.0h, WT), WT01/02–WT02/03.
- “Data Modelling” (2.0h, WT+ST), ST01.
- “Systems Programming” (2.0h, WT+ST), WT97/98–ST00.

Supervised PhD Theses

- Harald Beck. *Expressive Rule-based Stream Reasoning*, 2018. (Co-Supervisor).
- Bernhard Bliem. *Treewidth in Non-Ground Answer Set Solving and Alliance Problems in Graphs*, 2017.
selected as “Ausgezeichnete Informatikdissertationen” by Gesellschaft für Informatik (GI).
(Currently, Bernhard is employed as a post-doc at the University of Helsinki, Finland.)
- Günther Charwat. *BDD-based Dynamic Programming on Tree Decompositions – Towards an Alternative Approach for Efficient QBF Solving*, 2017.
- Sylwia Polberg. *Developing the Abstract Dialectical Framework*, 2017.
(Sylwia Polberg is currently employed as a post-doc at the University College London.)
- Thomas Linsbichler. *Advances in Abstract Argumentation – Expressiveness and Dynamics*, 2017.
received an “honourable mention” in the EURAI 2017 Artificial Intelligence Dissertation Award.
- Michael Abseher. *Tailored Tree Decompositions for Efficient Problem Solving*. 2017.
- Christoph Redl. *Answer Set Programming with External Sources: Algorithms and Efficient Evaluation*, 2015. (Co-Supervisor).
(Currently, Christoph Redl is employed as a post-doc at the Institute of Information Systems, Vienna University of Technology.)
- Friedrich Slivovksy. *Structure in #SAT and QBF*, 2015. (Co-Supervisor).
(Currently, Friedrich Slivovksy is employed as a post-doc at the Institute of Computer Graphics and Algorithms, Vienna University of Technology.)
- Johannes Wallner. *Complexity Results and Algorithms for Argumentation – Dung’s Frameworks and Beyond*, 2014.
(Currently, Johannes Wallner is running his own project the Institute of Information Systems, Vienna University of Technology.)
- Sarah Alice Gaggl. *A Comprehensive Analysis of the cf2 Argumentation Semantics: From Characterization to Implementation*, 2013.
(Since April 2013, Sarah Alice Gaggl has a post-doc position at the Research Group “Computational Logic”, Technische Universität Dresden.)
- Stefan Rümmele. *The Parameterized Complexity of Nonmonotonic Reasoning*, 2012. (Co-Supervisor).
(Currently, Stefan Rümmele is employed as a post-doc at the University of Sydney.)
- Wolfgang Dvořák. *Computational Aspects of Abstract Argumentation*, 2012.
selected as “Ausgezeichnete Informatikdissertationen” by Gesellschaft für Informatik (GI).
(From May 2012 to November 2016, Wolfgang Dvořák had a post-doc position at the Research Group “Theory and Applications of Algorithms” at the University of Vienna, Austria. Currently, he is employed as a post-doc at the Institute of Information Systems, Vienna University of Technology.)
- Michael Jakl. *Fixed Parameter Algorithms for Answer Set Programming*, 2010. (Co-Supervisor).

- Martina Seidl. *A Solver for Quantified Boolean Formulas in Negation Normal Form*, 2007. (Co-Supervisor).
selected as “Ausgezeichnete Informatikdissertationen 2007” by Gesellschaft für Informatik (GI). (Since September 2010 Martina Seidl holds a full position at the the Institute for Formal Models and Verification at the Johannes Kepler Universität in Linz, Austria.)

Supervised Master’s Theses

- André Schidler. *A Solver for the Steiner Tree Problem with few Terminals*, 2018.
- Patrick Bellositz. *Advancements in Equivalence Checking for Abstract Argumentation Frameworks*, 2018. (Co-Supervisor).
- Markus Zisser. *Solving #SAT on the GPU with Dynamic Programming and OpenCL*, 2018.
- Atefeh Keshaverzi. *Investigating Subclasses of Abstract Dialectical Frameworks*, 2017.
Awarded with the “Best Thesis Award of the EMCL”.
- Georg Heißenberger. *A System For Advanced Graphical Argumentation Formalisms*, 2016.
- Thomas Ambroz and Andreas Jusits. *Designing a System for Experimental Analysis and Visualization of Dynamic Programming on Tree Decompositions*, 2016.
- Markus Hecher. *Optimizing Second-Level Dynamic Programming Algorithms*, 2015. Awarded with prize “Würdigungspreis” given by the City of Vienna.
- Alina Aleksandrova. *Engineering Data-Aware Commitment-Based Multiagent Systems*, 2015. (Co-Supervisor).
- Marius Moldovan. *Implementing Variations of the Traveling Salesperson Problem in a Declarative Dynamic Programming Environment*, 2015.
- Adrian Haret. *Merging in the Horn fragment*, 2014.
- Martin Diller. *Solving Reasoning Problems on Abstract Dialectical Frameworks via Quantified Boolean Formulas*, 2014.
- Thomas Linsbichler. *On the Limits of Expressiveness in Abstract Argumentation Semantics: Realizability and Signatures*, 2013.
- Michael Abseher. *Solving Shift Design Problems with Answer Set Programming*, 2013.
- Christian Weichselbaum. *Abstract Argumentation and Answer-Set Programming – Modelling the Resolution-Based Grounded Semantics*, 2013.
- Christof Spanring. *Intertranslatability Results for Abstract Argumentation Semantics*, 2013.
- Bernhard Bliem. *Decompose, Guess & Check – Declarative Problem Solving on Tree Decompositions*, 2012. “Distinguished Young Alumnus”-Award given by the faculty of computer science. “Diplomarbeitspreis” given by the city council of Vienna.
- Stefan Ellmauthaler. *Abstract Dialectical Frameworks: Properties, Complexity, and Implementation*, 2012.

- Günther Charwat. *Tree-Decomposition based Algorithms for Abstract Argumentation Frameworks*, 2012. Awarded with the “ÖGAI Preis” of the Austrian Society for Artificial Intelligence.
- Michael Morak. *dynASP - A Dynamic Programming-based Answer-Set Programming Solver*, 2011. Awarded with prize “Würdigungspreis” given by the Austrian Ministry for Science and Research and the *OCG Förderpreis* granted by the Austrian Computer Society (OCG).
- Andreas Pfandler. *Decentralized Diagnosis: Complexity Analysis and Datalog Encodings*, 2009. (Co-Supervisor).
- Anna Roubickova. *Complexity of Argumentation*, 2009. (Co-Supervisor).
- Wolfgang Dvořák. *Alternation as a Programming Paradigm*, 2009. (Co-Supervisor).
- Sarah Alice Gaggl. *Solving Argumentation Frameworks using Answer Set Programming*, 2009. (Co-Supervisor).
- Stefan Rümmele. *Efficient Counting with Bounded Treewidth using Datalog*, 2008. (Co-Supervisor). “Distinguished Young Alumnus”-Award given by the faculty of computer science.
- Jörg Pührer. *On Debugging of Propositional Answer-Set Programs*, 2007. (Co-Supervisor).
- Andreas Heindl. *On Replacements in Answer-Set Programming based On Partial Evaluation*, 2007. (Co-Supervisor).
- Patrick Traxler. *Techniques for Simplifying Disjunctive Datalog Programs with Negation*, 2006. (Co-Supervisor).
- Michael Zolda. *Comparing Different Prenexing Strategies for Quantified Boolean Formulas*, 2004. (Co-Supervisor).

Current PhD Students and Project Staff

- Martin Diller, funded by FWF I1102 / FWF W1255.
- Adrian Haret, funded by FWF P25521.
- Markus Hecher, funded by FWF P25607 / FWF Y698.
- Jan Maly, funded by FWF P25521 / FWF Y698.
- Jörg Pührer (Post-Doc), funded by FWF I2854.
- Anna Rapberger funded by FWF I1102 / FWF W1255.
- Christof Spanring (Post-Doc), funded by FWF I2854 / FWF I1102.
- Markus Zisser, funded by FWF Y698.

In course of their PhD studies, Wolfgang Dvořák and Sarah Alice Gaggl received the *Best-Student Paper Prize* at NMR'12 for their work "Incorporating Stage Semantics in the SCC-recursive Schema for Argumentation Semantics". Thomas Linsbichler received the *Best Student Paper Award* at COMMA'14 for his paper on "Splitting Abstract Dialectical Frameworks". PhD student Sylwia Polberg won the *Best Talk Award* at the 7th European Starting AI Researcher Symposium (STAIRS-2014) for her presentation on "Extension-based Semantics of Abstract Dialectical Frameworks". Bernhard Bliem was awarded with the "*Best ICLP Doctoral Program Presentation*" at ICLP'17.

Former Project Staff

Michael Abseher, Gerald Berger, Bernard Bliem, Günther Charwat, Frederico Dusberger, Wolfgang Dvořák, Johannes Fichte, Sarah Alice Gaggl, Martin Kronegger, Martin Lackner, Thomas Linsbichler, Jean-Guy Mailly, Marius Moldovan, Michael Morak, Sylwia Polberg, Stefan Rümmele, Emanuel Sallinger, Johannes Wallner.

11 Publications

Journals

- [1] M. Abseher, B. Bliem, G. Charwat, F. Dusberger and S. Woltran. Computing Secure Sets in Graphs using Answer Set Programming. To appear in *Journal of Logic and Computation*, 2018. DOI: 10.1093/logcom/exv060.
- [2] J. Delgrande, P. Peppas and S. Woltran. General Belief Revision. *Journal of the ACM* 65(5): 29:1–29:34, 2018.
- [3] B. Bliem and S. Woltran. Equivalence between Answer-Set Programs under (partially) fixed Input. *Annals of Mathematics and Artificial Intelligence* 83(3-4): 277-295, 2018.
- [4] B. Bliem and S. Woltran. Complexity of Secure Sets. Bernhard Bliem, Stefan Woltran: Complexity of Secure Sets. *Algorithmica* 80(10): 2909–2940, 2018.
- [5] B. Bliem and S. Woltran. Defensive Alliances in Graphs of Bounded Treewidth. *Discrete Applied Mathematics* 251: 334–339, 2018.
- [6] N. Creignou, R. Pichler and S. Woltran. Do Hard SAT-Related Reasoning Tasks Become Easier in the Krom Fragment? *Logical Methods in Computer Science* 14(4): 1–25, 2018.
- [7] R. Brochenin, T. Linsbichler, M. Maratea, J. Wallner and S. Woltran. Abstract Solvers for Dung’s Argumentation Frameworks. *Argument & Computation* 9(1): 41–72, 2018.
- [8] M. Diller, A. Haret, T. Linsbichler, S. Rümmele and S. Woltran. An Extension-Based Approach to Belief Revision in Abstract Argumentation. *International Journal of Approximate Reasoning* 93: 395–423, 2018.
- [9] M. Abseher, B. Bliem, M. Hecher, M. Moldovan and S. Woltran. Dynamic Programming on Tree Decompositions with D-FLAT. *KI - Künstliche Intelligenz* 32(2-3): 191–192, 2018.
- [10] S. Gaggl, T. Linsbichler, M. Maratea and S. Woltran. Summary Report of the Second International Competition on Computational Models of Argumentation *AI Magazine* 39(4): 77–79, 2018.
- [11] G. Brewka, S. Ellmauthaler, H. Strass, J. Wallner and S. Woltran. Abstract Dialectical Frameworks. An Overview. *IfCoLog Journal of Logics and their Applications* 4(8): 2263–2318, 2017.
- [12] R. Gonçalves, M. Knorr, J. Leite and S. Woltran. When you must Forget: Beyond Strong Persistence when Forgetting in Answer Set Programming, *Theory and Practice of Logic Programming*, 17(5-6): 837–854, 2017.
- [13] J. Maly and S. Woltran. Ranking Specific Sets of Objects. *Datenbankspektrum* 17(3):255–265, 2017.
- [14] M. Abseher, N. Musliu and S. Woltran. Improving the Efficiency of Dynamic Programming on Tree Decompositions via Machine Learning. *Journal of Artificial Intelligence Research* 58:829–858, 2017.
- [15] B. Bliem, R. Pichler and S. Woltran. Implementing Courcelle’s Theorem in a Declarative Framework for Dynamic Programming. *Journal of Logic and Computation* 27(4): 1067-1094, 2017.

- [16] A. Haret, S. Rümmele and S. Woltran. Merging in the Horn Fragment. *ACM Transactions on Computational Logic* 18(1), 2017.
- [17] M. Bichler, M. Morak and S. Woltran. The Power of Non-Ground Rules in Answer Set Programming. *Theory and Practice of Logic Programming*, 16(5-6): 552-569, 2016.
- [18] R. Baumann, W. Dvořák, T. Linsbichler, C. Spanring, H. Strass and S. Woltran. On Rejected Arguments and Implicit Conflicts: The Hidden Power of Argumentation Semantics. *Artificial Intelligence* 241: 244–284, 2016.
- [19] N. Creignou, O. Papini, S. Rümmele and S. Woltran. Belief Merging within Fragments of Propositional Logic. *ACM Transactions on Computational Logic* 17(3), 2016.
- [20] B. Bliem, G. Charwat, M. Hecher and S. Woltran. D-FLAT²: Subset Minimization in Dynamic Programming on Tree Decompositions Made Easy. *Fundamenta Informaticae* 147(1): 27–61, 2016.
- [21] M. Abseher, M. Gebser, N. Musliu, T. Schaub and S. Woltran. Shift Design with Answer Set Programming. *Fundamenta Informaticae* 147(1): 1–25, 2016.
- [22] R. Baumann and S. Woltran. The Role of Self-Attacking Arguments in Characterizations of Equivalence Notions. *Journal of Logic and Computation* 26(4): 1293-1313, 2016.
- [23] M. Diller, J. Wallner and S. Woltran. Reasoning in Abstract Dialectical Frameworks using Quantified Boolean Formulas. *Argument & Computation* 6(2): 149–177, 2015.
- [24] P. Dunne, W. Dvořák, T. Linsbichler and S. Woltran. Characteristics of Multiple Viewpoints in Abstract Argumentation. *Artificial Intelligence* 228: 153–178, 2015.
- [25] J. Fichte, M. Truszczyński and S. Woltran. Dual-normal Logic Programs – the Forgotten Class. *Theory and Practice of Logic Programming* 15(4–5):495–510, 2015.
- [26] S. Gaggl, N. Manthey, A. Ronca, J. Wallner and S. Woltran. Improved Answer-set Programming Encodings for Abstract Argumentation. *Theory and Practice of Logic Programming* 15(4–5):434–448, 2015.
- [27] G. Charwat, W. Dvořák, S. Gaggl, J. Wallner and S. Woltran. Methods for Solving Reasoning Problems in Abstract Argumentation – A Survey. *Artificial Intelligence* 220: 28–63, 2015.
- [28] A. Pfandler, R. Pichler and S. Woltran. The Complexity of Handling Minimal Solutions in Logic-Based Abduction. *Journal of Logic and Computation* 25(3): 805–825, 2015.
- [29] G. Brewka, S. Polberg and S. Woltran. Generalizations of Dung Frameworks and Their Role in Formal Argumentation. *IEEE Intelligent Systems* 29(1): 30–38, 2014.
- [30] M. Alviano, W. Faber and S. Woltran. Complexity of Super-Coherence Problems in ASP. *Theory and Practice of Logic Programming* 14(3): 339–361, 2014.
- [31] R. Pichler, S. Rümmele, S. Szeider and S. Woltran. Tractable Answer-Set Programming with Weight Constraints: Bounded Treewidth is not Enough. *Theory and Practice of Logic Programming* 14(2): 141–164, 2014.

- [32] N. Creignou, O. Papini, R. Pichler and S. Woltran. Belief Revision within Fragments of Propositional Logic. *Journal of Computer and System Sciences* 80(2): 427–449, 2014.
- [33] W. Dvořák, M. Järvisalo, J. Wallner and S. Woltran. Complexity-Sensitive Decision Procedures for Abstract Argumentation. *Artificial Intelligence* 206: 53–78, 2014.
- [34] S. Gaggl and S. Woltran. The cf2 Argumentation Semantics Revisited. *Journal of Logic and Computation* 23(5): 925–949, 2013.
- [35] P. Dunne, W. Dvořák and S. Woltran. Parametric Properties of Ideal Semantics. *Artificial Intelligence* 202: 1–28, 2013.
- [36] R. Pichler, A. Polleres, S. Skritek and S. Woltran. Complexity of Redundancy Detection on RDF Graphs in the Presence of Rules, Constraints, and Queries. *Semantic Web Journal* 4(4):351–393, 2013.
- [37] W. Faber, M. Truszczyński and S. Woltran. Strong Equivalence of Qualitative Optimization Problems. *Journal of Artificial Intelligence Research* 47:351–391, 2013.
- [38] J. Delgrande, T. Schaub, H. Tompits and S. Woltran. A Model-Theoretic Approach to Belief Change in Answer Set Programming. *ACM Transactions on Computational Logic* 14(2), 2013.
- [39] T. Eiter, M. Fink, J. Pührer, H. Tompits and S. Woltran. Model-Based Recasting in Answer-Set Programming. *Journal of Applied Non-Classical Logics* 23(1-2): 75–104, 2013.
- [40] B. Bliem, M. Morak and S. Woltran. D-FLAT: Declarative Problem Solving Using Tree Decompositions and Answer-Set Programming. *Theory and Practice of Logic Programming* 12(4-5): 445–464, 2012.
- [41] W. Dvořák, R. Pichler and S. Woltran. Towards Fixed-Parameter Tractable Algorithms for Abstract Argumentation. *Artificial Intelligence* 186(1): 1–37, 2012.
- [42] N. Creignou, J. Schmidt, M. Thomas and S. Woltran. Complexity of Logic-Based Argumentation in Post’s Framework. *Argument & Computation*, 2(2-3):107–129, 2011.
- [43] W. Dvořák and S. Woltran. On the Intertranslatability of Argumentation Semantics. *Journal of Artificial Intelligence Research* 41:445–475, 2011.
- [44] E. Oikarinen and S. Woltran. Characterizing Strong Equivalence for Argumentation Frameworks. *Artificial Intelligence* 175(14-15): 1985–2009, 2011.
- [45] U. Egly, S. Gaggl and S. Woltran. Answer-Set Programming Encodings for Argumentation Frameworks. *Argument & Computation* 1(2): 147–177, 2010.
- [46] W. Dvořák and S. Woltran. Complexity of Semi-Stable and Stage Semantics in Argumentation Frameworks. *Information Processing Letters* 110(11):425–430, 2010.
- [47] M. Truszczyński and S. Woltran. Relativized Hyperequivalence of Logic Programs for Modular Programming. *Theory and Practice of Logic Programming* 9(6):781–819, 2009.
- [48] T. Janhunen, E. Oikarinen, H. Tompits and S. Woltran. Modularity Aspects of Disjunctive Stable Models. *Journal of Artificial Intelligence Research* 35:813–857, 2009.

- [49] D. Pearce, H. Tompits and S. Woltran. Characterising Equilibrium Logic and Nested Logic Programs: Reductions and Complexity. *Theory and Practice of Logic Programming* 9(5):565–616, 2009.
- [50] P. Besnard, A. Hunter and S. Woltran. Encoding Deductive Argumentation in Quantified Boolean Formulae. *Artificial Intelligence* 173(15):1406–1434, 2009.
- [51] U. Egly, M. Seidl and S. Woltran. A Solver for QBFs in Nonprenex Form. *Constraints Journal* 14(1):38–79, 2009.
- [52] M. Truszczyński and S. Woltran. Hyperequivalence of Logic Programs with Respect to Supported Models. *Annals of Mathematics and Artificial Intelligence* 53(1-4): 331–365, 2008.
- [53] S. Woltran. A Common View on Strong, Uniform, and Other Notions of Equivalence in Answer-Set Programming. *Theory and Practice of Logic Programming* 8(2):217–234, 2008.
- [54] T. Eiter, W. Faber, M. Fink and S. Woltran. Complexity Results for Answer Set Programming with Bounded Predicate Arities and Implications. *Annals of Mathematics and Artificial Intelligence* 51(2-4):123–165, 2007.
- [55] T. Eiter, M. Fink and S. Woltran. Semantical Characterizations and Complexity of Equivalences in Answer Set Programming. *ACM Transactions on Computational Logic* 8(3), 2007. (53 pages)
- [56] U. Egly, R. Pichler and S. Woltran. On Deciding Subsumption Problems. *Annals of Mathematics and Artificial Intelligence* 43(1-4):255–294, 2005.
- [57] J. Delgrande, T. Schaub, H. Tompits and S. Woltran. On Computing Solutions to Belief Change Scenarios. *Journal of Logic and Computation* 14(6):801–826, 2004.

Volumes Edited

- [58] T. Schaub and S. Woltran. Answer Set Programming Unleashed. Special Issue on Answer-Set Programming. *KI - Künstliche Intelligenz* 32(2-3), 2018.
- [59] F. Ferrarotti and S. Woltran. *Foundations of Information and Knowledge Systems - 10th International Symposium, FoIKS 2018, Budapest, Hungary, May 14-18, 2018, Proceedings*. Springer LNCS 10833, 2018.
- [60] J. Leite, T.C. Son, P. Torroni and S. Woltran. Special Issue on Computational Logic in Multi-Agent Systems (CLIMA XIV). *Journal of Logic and Computation* 28(3), 2018.
- [61] T. Eiter, H. Strass, M. Truszczyński and S. Woltran. *Advances in Knowledge Representation, Logic Programming, and Abstract Argumentation – Essays Dedicated to Gerhard Brewka on the Occasion of His 60th Birthday*, Springer LNCS 9060, 2015.
- [62] J. Leite, T.C. Son, P. Torroni and S. Woltran. Special Issue: Applications of logical approaches to argumentation. *Argument & Computation* 6(1), 2015.
- [63] M. Croitoru, S. Rudolph, S. Woltran and C. Gonzales. *Graph Structures for Knowledge Representation and Reasoning — Third International Workshop, GKR 2013, Beijing, China, August 3, 2013. Revised Selected Papers*. LNCS vol. 8323, Springer 2014.

- [64] J. Leite, T.C. Son, P. Torroni, L. van der Torre and S. Woltran. *Computational Logic in Multi-Agent Systems - Proceedings of CLIMA XIV*, Corunna, Spain, September 16-18, 2013. LNCS, vol. 8143, Springer 2013.
- [65] B. Verheij, S. Szeider and S. Woltran. *Computational Models of Argument - Proceedings of COMMA 2012*, Vienna, Austria, September 10-12, 2012. Frontiers in Artificial Intelligence and Applications, vol. 245, IOS Press 2012.
- [66] M. Balduccini and S. Woltran. Special Issue on Answer Set Programming. *AI Communications* 24(2), 2011.
- [67] D. Pearce, A. Polleres, A. Valverde and S. Woltran. *Proceedings of the LPNMR'07 Workshop on Correspondence and Equivalence for Nonmonotonic Theories*. CEUR Workshop Proceedings, Volume 265, 2007.
- [68] M. Fink, H. Tompits and S. Woltran. *Proceedings of the 20th Workshop on Logic Programming*. Technical Report INFYS RR-1843-06-02, Technische Universität Wien, Institut für Informationssysteme, 2006.

Contributions in Books

- [69] G. Brewka, S. Ellmauthaler, H. Strass, J. Wallner and S. Woltran. Abstract Dialectical Frameworks. In P. Baroni, D. Gabbay, M. Giacomin and L. van der Torre (eds.): *Handbook of Formal Argumentation*, pp. 237–286, College Publications, 2018.
- [70] T. Eiter, H. Strass, M. Truszczyński and S. Woltran. A Glimpse on Gerhard Brewka's Contributions to Artificial Intelligence. In T. Eiter, H. Strass, M. Truszczyński and S. Woltran (eds.): *Advances in Knowledge Representation, Logic Programming, and Abstract Argumentation – Essays Dedicated to Gerhard Brewka on the Occasion of His 60th Birthday*, pp. 1–16, Springer LNCS 9060, 2015.
- [71] W. Dvořák, S. Gaggl, S. Szeider and S. Woltran. Benchmark Libraries for Argumentation. In S. Ossowski (ed.): *Agreement Technologies*, pp. 389–393, Springer LGTS 8, 2012.
- [72] R. Baumann, G. Brewka, W. Dvořák and S. Woltran. Parameterized Splitting: A Simple Modification-Based Approach. In E. Erdem, J. Lee, Y. Lierler and D. Pearce (eds.): *Correct Reasoning – Essays on Logic-Based AI in Honour of Vladimir Lifschitz*, pp. 57–71, Springer LNCS 7265, 2012.
- [73] W. Faber and S. Woltran. Manifold Answer-Set Programs and Their Applications. In M. Balduccini and T.C. Son (eds.): *Logic Programming, Knowledge Representation, and Nonmonotonic Reasoning. Essays Dedicated to Michael Gelfond on the Occasion of His 65th Birthday*, pp. 44–63. Springer LNAI 6565, 2011.
- [74] P. Besnard, T. Schaub, H. Tompits and S. Woltran. Representing Paraconsistent Reasoning via Quantified Propositional Logic. In L. Bertossi, A. Hunter and T. Schaub (eds.): *Inconsistency Tolerance*, pp. 84–118. Springer LNCS 3300, 2005.

Conferences

- [75] J. Maly, M. Trzuszczński and S. Woltran. Preference Orders on Families of Sets - When Can Impossibility Results Be Avoided? *Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI'18)*, pp. 433-439, IJCAI, 2018.
- [76] M. Bichler, M. Morak and S. Woltran. Single-Shot Epistemic Logic Program Solving. *Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI'18)*, pp. 1714-1720, IJCAI, 2018.
- [77] N. Creignou, A. Haret, O. Papini and S. Woltran. Belief Update in the Horn Fragment. *Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI'18)*, pp. 1781-1787, IJCAI, 2018.
- [78] A. Haret, J. Wallner and S. Woltran. Two Sides of the Same Coin: Belief Revision and Enforcing Arguments. *Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI'18)*, pp. 1854-1860, IJCAI, 2018.
- [79] T. Linsbichler, M. Maratea, A. Niskanen, J. Wallner and S. Woltran. Novel Algorithms for Abstract Dialectical Frameworks based on Complexity Analysis of Subclasses and SAT Solving. *Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI'18)*, pp. 1905–1911, IJCAI, 2018.
- [80] G. Brewka, H. Strass, J. Wallner and S. Woltran. Weighted Abstract Dialectical Frameworks. *Proceedings of the 31st AAAI Conference on Artificial Intelligence (AAAI'18)*, pp. 1779–1786, AAAI Press, 2018.
- [81] R. Gonçalves, T. Janhunen, M. Knorr, J. Leite and S. Woltran. Variable Elimination for DLP-Functions. *Proceedings of the 16th International Conference on Principles of Knowledge Representation and Reasoning (KR'18)*, pp. 643–644, AAAI Press, 2018.
- [82] J. Fichte, M. Hecher, M. Morak and S. Woltran. Exploiting Treewidth for Projected Model Counting and Its Limits. *Proceedings of the 21st International Conference on Theory and Applications of Satisfiability Testing (SAT'18)*, pp. 165–184, Springer LNCS 10929, 2018.
- [83] J. Fichte, M. Hecher, S. Woltran and M. Zisser. Weighted Model Counting on the GPU by Exploiting Small Treewidth. *Proceedings of the 26th Annual European Symposium on Algorithms (ESA'18)*, pp. 28:1–28:16, LIPIcs 112, 2018.
- [84] W. Dvořák, J. Fandinno and S. Woltran. On the Expressive Power of Collective Attacks. *Proceedings of the 7th International Conference on Computational Models of Argument (COMMA'18)*, pp. 49–60, IOS Press, 2018.
- [85] M. Diller, A. Keshavarzi, T. Linsbichler and S. Woltran. Investigating Subclasses of Abstract Dialectical Frameworks. *Proceedings of the 7th International Conference on Computational Models of Argument (COMMA'18)*, pp. 61–72, IOS Press, 2018.
- [86] R. Baumann, W. Dvořák, T. Linsbichler and S. Woltran. A General Notion of Equivalence for Abstract Argumentation *Proceedings of the 26th International Joint Conference on Artificial Intelligence (IJCAI'17)*, pp. 800–806, IJCAI, 2017.

- [87] B. Bliem, M. Moldovan, M. Morak and S. Woltran. The Impact of Treewidth on ASP Grounding and Solving. *Proceedings of the 26th International Joint Conference on Artificial Intelligence (IJCAI'17)*, pp. 852–858, IJCAI, 2017.
- [88] M. Kröll, R. Pichler and S. Woltran. On the Complexity of Enumerating the Extensions of Abstract Argumentation Frameworks. *Proceedings of the 26th International Joint Conference on Artificial Intelligence (IJCAI'17)*, pp. 1145–1152, IJCAI, 2017.
- [89] G. Brewka, M. Diller, G. Heissenberger, T. Linsbichler and S. Woltran. Solving Advanced Argumentation Problems with Answer-Set Programming. *Proceedings of the 30th AAAI Conference on Artificial Intelligence (AAAI'17)*, pp. 1077–1083, AAAI Press, 2017.
- [90] J. Fichte, M. Hecher, M. Morak and S. Woltran. Answer Set Solving with Bounded Treewidth Revisited. *Proceedings of the 14th International Conference on Logic Programming and Non-monotonic Reasoning (LPNMR'17)*, pp. 132–145, Springer LNCS 10377, 2017.
- [91] J. Fichte, M. Hecher, M. Morak and S. Woltran. DynASP2.5: Dynamic Programming on Tree Decompositions in Action. *Proceedings of the 12th International Symposium on Parameterized and Exact Computation (IPEC'17)*, pp. 17:1–17:13, LIPIcs 89, 2018.
- [92] M. Abseher, N. Musliu and S. Woltran. htd - A Free, Open-Source Framework for (Customized) Tree Decompositions and Beyond. *Proceedings of the 14th International Conference on Integration of AI and OR Techniques in Constraint Programming (CPAIOR'17)*, pp. 376–386, Springer LNCS 10335, 2017.
- [93] B. Bliem, B. Kaufmann, T. Schaub and S. Woltran. ASP for Anytime Dynamic Programming on Tree Decompositions. *Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI'16)*, pp. 979–986, AAAI Press, 2016.
- [94] P. Dunne, C. Spanring, T. Linsbichler and S. Woltran. Investigating the Relationship between Argumentation Semantics via Signatures. *Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI'16)*, pp. 1051–1057. AAAI Press, 2016.
- [95] A. Haret, J. Mailly and S. Woltran. Distributing Knowledge into Simple Bases. *Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI'16)*, pp. 1109–1115. AAAI Press, 2016.
- [96] A. Haret, A. Pfandler and S. Woltran. Beyond IC Postulates: Classification Criteria for Merging Operators. *Proceedings of the 22nd European Conference on Artificial Intelligence (ECAI'16)*, pp. 372–380. IOS Press, 2016.
- [97] G. Brewka, J. Mailly and S. Woltran. Translation-Based Revision and Merging for Minimal Horn Reasoning. *Proceedings of the 22nd European Conference on Artificial Intelligence (ECAI'16)*, pp. 734–742. IOS Press, 2016.
- [98] B. Bliem, S. Ordyniak and S. Woltran. Clique-Width and Directed Width Measures for Answer-Set Programming. *Proceedings of the 22nd European Conference on Artificial Intelligence (ECAI'16)*, pp. 1105–1113. IOS Press, 2016.
- [99] M. Giacomin, T. Linsbichler and S. Woltran. On the Functional Completeness of Argumentation Semantics. *Proceedings of the 15th International Conference on Principles of Knowledge Representation and Reasoning (KR'16)*, pp. 43–52, AAAI Press, 2016.

- [100] J. Delobelle, A. Haret, S. Konieczny, J. Maily, J. Rossit and S. Woltran. Merging of Abstract Argumentation Frameworks. *Proceedings of the 15th International Conference on Principles of Knowledge Representation and Reasoning (KR'16)*, pp. 33–42, AAAI Press, 2016.
- [101] B. Bliem and S. Woltran. Equivalence Between Answer-Set Programs Under (Partially) Fixed Input. *Proceedings of the 9th International Symposium on Foundations of Information and Knowledge Systems (FoIKS'16)*, pp. 95–111, Springer LNCS 9616, 2016.
- [102] M. Bichler, M. Morak and S. Woltran. Ipopt: A Rule Optimization Tool for Answer Set Programming. *Proceedings of the 26th International Symposium on Logic-Based Program Synthesis and Transformation (LOPSTR'16)*, Selected Papers, pp. 114–130, Springer LNCS 10184, 2016.
- [103] R. Baumann, T. Linsbichler and S. Woltran. Verifiability of Argumentation Semantics. *Proceedings of the 6th International Conference on Computational Models of Argument (COMMA'16)*, pp. 83–94, IOS Press, 2016.
- [104] B. Bliem, M. Hecher and S. Woltran. On Efficiently Enumerating Semi-Stable Extensions via Dynamic Programming on Tree Decompositions. *Proceedings of the 6th International Conference on Computational Models of Argument (COMMA'16)*, pp. 107–118, IOS Press, 2016.
- [105] G. Heissenberger and S. Woltran. GrappaVis - A System for Advanced Graph-Based Argumentation. *Proceedings of the 6th International Conference on Computational Models of Argument (COMMA'16)*, pp. 473–474, IOS Press, 2016.
- [106] M. Abseher, M. Moldovan and S. Woltran. Providing Built-In Counters in a Declarative Dynamic Programming Environment. *Proceedings of the 39th Annual German Conference on AI (KI'16)*, pp. 3–16, Springer LNCS 9904, 2016.
- [107] B. Bliem, B. Kaufmann, T. Schaub and S. Woltran. ASP for Anytime Dynamic Programming on Tree Decompositions (Extended Abstract). *Proceedings of the 39th Annual German Conference on AI (KI'16)*, pp. 257–263, Springer LNCS 9904, 2016.
- [108] P. Dunne, C. Spanring, T. Linsbichler and S. Woltran. Investigating the Relationship between Argumentation Semantics via Signatures (Extended Abstract). *Proceedings of the 39th Annual German Conference on AI (KI'16)*, pp. 271–277, Springer LNCS 9904, 2016.
- [109] B. Bliem and S. Woltran. Complexity of Secure Sets. *Proceedings of the 41st International Workshop on Graph-Theoretic Concepts in Computer Science (WG'15)*, pp. 64–77, Springer LNCS 9224, 2016.
- [110] M. Abseher, F. Dusberger, N. Musliu and S. Woltran. Improving the Efficiency of Dynamic Programming on Tree Decompositions via Machine Learning. *Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI'15)*, pp. 275–282, AAAI Press, 2015.
- [111] M. Diller, A. Haret, T. Linsbichler, S. Rümmele and S. Woltran. An Extension-Based Approach to Belief Revision in Abstract Argumentation. *Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI'15)*, pp. 2926–2932, AAAI Press, 2015.
- [112] A. Haret, S. Rümmele and S. Woltran. Merging in the Horn Fragment. *Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI'15)*, pp. 3041–3047, AAAI Press, 2015.

- [113] A. Pfandler, S. Rümmele, J. Wallner and S. Woltran. On the Parameterized Complexity of Belief Revision. *Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI'15)*, pp. 3149–3155, AAAI Press, 2015.
- [114] W. Dvořák, M. Jarvisalo, J. Wallner and S. Woltran. Complexity-Sensitive Decision Procedures for Abstract Argumentation (Extended Abstract / Journal Track). *Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI'15)*, pp. 4173–4177, AAAI Press, 2015.
- [115] G. Charwat and S. Woltran. Efficient Problem Solving on Tree Decompositions Using Binary Decision Diagrams. *Proceedings of the 13th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR'15)*, pp. 213–227, Springer LNCS 9345, 2015.
- [116] M. Abseher, M. Gebser, N. Musliu, T. Schaub and S. Woltran. Shift Design with Answer Set Programming. *Proceedings of the 13th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR'15)*, pp. 32–39, Springer LNCS 9345, 2015.
- [117] R. Brochenin, T. Linsbichler, M. Maratea, J. Wallner and S. Woltran. Abstract Solvers for Dung's Argumentation Frameworks. *Proceedings of the 3rd International Workshop on Theory and Applications of Formal Argumentation (TAFA'15)*, pp. 40–58, Springer LNCS 9524, 2015.
- [118] T. Linsbichler, C. Spanring and S. Woltran. The Hidden Power of Abstract Argumentation Semantics. *Proceedings of the 3rd International Workshop on Theory and Applications of Formal Argumentation (TAFA'15)*, pp. 146–162, Springer LNCS 9524, 2015.
- [119] P. Dunne, W. Dvořák, T. Linsbichler and S. Woltran. Characteristics of Multiple Viewpoints in Abstract Argumentation. *Proceedings of the 14th International Conference on Principles of Knowledge Representation and Reasoning (KR'14)*, pp. 72–81, AAAI Press, 2014.
- [120] R. Baumann, W. Dvořák, T. Linsbichler, H. Strass and S. Woltran. Compact Argumentation Frameworks. *Proceedings of the 21st European Conference on Artificial Intelligence (ECAI'14)*, pp. 69–74, IOS Press, 2014.
- [121] G. Brewka and S. Woltran. GRAPPA: A Semantical Framework for Graph-Based Argument Processing. *Proceedings of the 21st European Conference on Artificial Intelligence (ECAI'14)*, pp. 153–158, IOS Press, 2014.
- [122] N. Creignou, O. Papini, S. Rümmele and S. Woltran. Belief Merging within Fragments of Propositional Logic. *Proceedings of the 21st European Conference on Artificial Intelligence (ECAI'14)*, pp. 231–236, IOS Press, 2014.
- [123] M. Diller, J. Wallner and S. Woltran. Reasoning in Abstract Dialectical Frameworks Using Quantified Boolean Formulas. *Proceedings of the 5th International Conference on Computational Models of Argument (COMMA'14)*, pp. 241–252, IOS Press, 2014.
- [124] W. Dvořák, T. Linsbichler, E. Oikarinen and S. Woltran. Resolution-Based Grounded Semantics Revisited. *Proceedings of the 5th International Conference on Computational Models of Argument (COMMA'14)*, pp. 269–280, IOS Press, 2014.
- [125] M. Abseher, B. Bliem, G. Charwat, F. Dusberger, M. Hecher and S. Woltran. The D-FLAT System for Dynamic Programming on Tree Decompositions. *Proceedings of the 14th European*

- Conference on Logics in Artificial Intelligence (JELIA'14)*, pp. 558–572, Springer LNCS 8761, 2014.
- [126] D. Doder and S. Woltran. Probabilistic Argumentation Frameworks - A Logical Approach. *Proceedings of the 8th International Conference on Scalable Uncertainty Management (SUM'14)*, pp. 134–147, Springer LNAI 8720, 2014.
- [127] W. Faber, M. Truszczyński and S. Woltran. Abstract Preference Frameworks – A Unifying Perspective on Separability and Strong Equivalence. *Proceedings of the 27th AAAI Conference on Artificial Intelligence (AAAI'13)*, pp. 279–303, AAAI Press, 2013.
- [128] N. Creignou, R. Pichler and S. Woltran. Do Hard SAT-related Reasoning Tasks Become Easier in the Krom Fragment? *Proceedings of the 23rd International Joint Conference on Artificial Intelligence (IJCAI'13)*, pp. 824–831, IJCAI/AAAI, 2013.
- [129] G. Brewka, S. Ellmauthaler, H. Strass, J. Wallner and S. Woltran. Abstract Dialectical Frameworks Revisited. *Proceedings of the 23rd International Joint Conference on Artificial Intelligence (IJCAI'13)*, pp. 803–809, IJCAI/AAAI, 2013.
- [130] B. Bliem, R. Pichler and S. Woltran. Declarative Dynamic Programming as an Alternative Realization of Courcelle's Theorem. *Proceedings of the 8th International Symposium on Parameterized and Exact Computation (IPEC'13)*, pp. 28–40, Springer LNCS 8246, 2013.
- [131] J. Delgrande, P. Peppas and S. Woltran. AGM-Style Belief Revision of Logic Programs under Answer Set Semantics. *Proceedings of the 12th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR'13)*, pp. 264–276, Springer LNCS 8148, 2013.
- [132] T. Ambroz, G. Charwat, A. Jusits, J. Wallner and S. Woltran. ARVis: Visualizing Relations between Answer Sets. *Proceedings of the 12th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR'13)*, pp. 73–78, Springer LNCS 8148, 2013.
- [133] S. Polberg, J. Wallner and S. Woltran. Admissibility in the Abstract Dialectical Framework. *Proceedings of the 14th International Workshop on Computational Logic in Multi-Agent Systems (CLIMA XIV)*, pp. 102–118, Springer LNCS 8143, 2013.
- [134] J. Wallner, G. Weissenbacher and S. Woltran. Advanced SAT Techniques for Abstract Argumentation. *Proceedings of the 14th International Workshop on Computational Logic in Multi-Agent Systems (CLIMA XIV)*, pp. 138–154, Springer LNCS 8143, 2013.
- [135] A. Hunter and S. Woltran. Structural Properties for Deductive Argument Systems. *Proceedings of the 12th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU'13)*, pp. 278–289, Springer LNCS 7958, 2013.
- [136] W. Dvořák, M. Jarvisalo, J. Wallner and S. Woltran. Complexity-Sensitive Decision Procedures for Abstract Argumentation. *Proceedings of the 13th International Conference on Principles of Knowledge Representation and Reasoning (KR'12)*, pp. 54–64, AAAI Press, 2012.
- [137] N. Creignou, O. Papini, R. Pichler and S. Woltran. Belief Revision within Fragments of Propositional Logic. *Proceedings of the 13th International Conference on Principles of Knowledge Representation and Reasoning (KR'12)*, pp. 126–136, AAAI Press, 2012.

- [138] W. Faber, M. Truszczyński and S. Woltran. Strong Equivalence of Qualitative Optimization Problems. *Proceedings of the 13th International Conference on Principles of Knowledge Representation and Reasoning (KR'12)*, pp. 188–198, AAAI Press, 2012.
- [139] W. Dvořák, S. Szeider and S. Woltran. Abstract Argumentation via Monadic Second Order Logic. *Proceedings of the 6th International Conference on Scalable Uncertainty Management (SUM'12)*, pp. 85–98, Springer LNCS 7520, 2012.
- [140] M. Lackner, R. Pichler, S. Rümmele and S. Woltran. Multicut on Graphs of Bounded Clique-Width. *Proceedings of the 6th Annual International Conference on Combinatorial Optimization and Applications (COCO'A'12)*, pp. 115–126, Springer LNCS 7402, 2012.
- [141] M. Morak, N. Musliu, R. Pichler, S. Rümmele and S. Woltran. Evaluating Tree-Decomposition Based Algorithms for Answer Set Programming. *Proceedings of the 6th International Conference on Learning and Intelligent Optimization (LION'12)*, pp. 130–144, Springer LNCS 7219, 2012.
- [142] M. Morak and S. Woltran. Preprocessing of Complex Non-Ground Rules in Answer Set Programming. *Technical Communications of the 28th International Conference on Logic Programming (ICLP'12)*, pp. 247–258, LIPIcs 17, 2012.
- [143] W. Dvořák, P. Dunne and S. Woltran. Parametric Properties of Ideal Semantics. *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI'11)*, pp. 851–856, IJCAI/AAAI 2011.
- [144] G. Brewka, P. Dunne and S. Woltran. Relating the Semantics of Abstract Dialectical Frameworks and Standard AFs. *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI'11)*, pp. 780–785, IJCAI/AAAI 2011.
- [145] S. Gaggl and S. Woltran. Strong Equivalence for Argumentation Semantics Based on Conflict-Free Sets. *Proceedings of the 11th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU'11)*, pp. 38–49, Springer LNCS 6716, 2011.
- [146] M. Morak, N. Musliu, R. Pichler, S. Rümmele and S. Woltran. A New Tree-Decomposition Based Algorithm for Answer Set Programming. *Proceedings of the 23rd International Conference on Tools with Artificial Intelligence (ICTAI'11)*, pp. 916–918, IEEE, 2011.
- [147] S. Woltran. Equivalence between Extended Datalog Programs — A Brief Survey. *Datalog Reloaded. First International Workshop, Datalog 2010, Revised Selected Papers*, pp. 106–119, Springer LNCS 6702, 2011.
- [148] W. Dvořák, S. Gaggl, J. Wallner and S. Woltran. Making Use of Advances in Answer-Set Programming for Abstract Argumentation Systems. *Proceedings of the 19th International Conference on Applications of Declarative Programming and Knowledge Management (INAP/WLP'11)*, pp. 114–133, Springer LNCS 7773, 2013.
- [149] W. Dvořák, M. Morak, C. Nopp and S. Woltran. dynPARTIX - A Dynamic Programming Reasoner for Abstract Argumentation. *Proceedings of the 19th International Conference on Applications of Declarative Programming and Knowledge Management (INAP/WLP'11)*, pp. 259–268, Springer LNCS 7773, 2013.

- [150] R. Pichler, A. Polleres, S. Skritek and S. Woltran. Redundancy Elimination on RDF Graphs in the Presence of Rules, Constraints, and Queries. *Proceedings of the 4th International Conference on Web Reasoning and Rule Systems (RR'10)*, pp. 133–148, Springer LNCS 6333, 2010.
- [151] S. Gaggl and S. Woltran. cf2 Semantics Revisited.. *Proceedings of the 3rd International Conference on Computational Models of Argument (COMMA'10)*, pp. 243–254, IOS Press, 2010.
- [152] W. Dvořák, S. Szeider and S. Woltran. Reasoning in Argumentation Frameworks of Bounded Clique-Width. *Proceedings of the 3rd International Conference on Computational Models of Argument (COMMA'10)*, pp. 219–230, IOS Press, 2010.
- [153] G. Brewka, M. Truszczynski and S. Woltran. Representing Preferences Among Sets. *Proceedings of the 24th AAAI Conference on Artificial Intelligence (AAAI'10)*, pp. 273–278, AAAI Press, 2010.
- [154] R. Pichler and S. Woltran. The Complexity of Handling Minimal Solutions in Logic-Based Abduction. *Proceedings of the 19th European Conference on Artificial Intelligence (ECAI'10)*, pp. 895–900, IOS Press, 2010.
- [155] G. Brewka and S. Woltran. Abstract Dialectical Frameworks. *Proceedings of the 12th International Conference on the Principles of Knowledge Representation and Reasoning (KR'10)*, pp. 102–111, AAAI Press, 2010.
- [156] R. Pichler, S. Rümmele, S. Szeider and S. Woltran. Tractable Answer-Set Programming with Weight Constraints: Bounded Treewidth is not Enough. *Proceedings of the 12th International Conference on the Principles of Knowledge Representation and Reasoning (KR'10)*, pp. 508–517, AAAI Press, 2010.
- [157] W. Dvořák, R. Pichler and S. Woltran. Towards Fixed-Parameter Tractable Algorithms for Argumentation. *Proceedings of the 12th International Conference on the Principles of Knowledge Representation and Reasoning (KR'10)*, pp. 112–122, AAAI Press, 2010.
- [158] E. Oikarinen and S. Woltran. Characterizing Strong Equivalence for Argumentation Frameworks. *Proceedings of the 12th International Conference on the Principles of Knowledge Representation and Reasoning (KR'10)*, pp. 123–133, AAAI Press, 2010.
- [159] R. Pichler, S. Rümmele and S. Woltran. Multicut Algorithms via Tree Decompositions. *Proceedings of the 7th International Conference on Algorithms and Complexity (CIAC'10)*, pp. 167–179, Springer LNCS 6078, 2010.
- [160] N. Creignou, J. Schmidt, M. Thomas and S. Woltran. Sets of Boolean Connectives That Make Argumentation Easier. *Proceedings of the 12th European Conference on Logics in Artificial Intelligence (JELIA'10)*, pp. 117–129, Springer LNCS 6341, 2010.
- [161] M. Morak, R. Pichler, S. Rümmele and S. Woltran. A Dynamic-Programming Based ASP-Solver. *Proceedings of the 12th European Conference on Logics in Artificial Intelligence (JELIA'10)*, pp. 369–372, Springer LNCS 6341, 2010.
- [162] R. Pichler, S. Rümmele and S. Woltran. Counting and Enumeration Problems with Bounded Treewidth. *Proceedings of the 16th International Conference on Logic for Programming, Artificial Intelligence and Reasoning (LPAR'10)*, pp. 387–404, Springer LNCS 6355, 2010.

- [163] M. Jakl, R. Pichler and S. Woltran. Answer-Set Programming with Bounded Treewidth. *Proceedings of the 21st International Joint Conference on Artificial Intelligence (IJCAI'09)*, pp. 816–822, AAAI Press, 2009.
- [164] W. Dvořák, G. Gottlob, R. Pichler and S. Woltran. Alternation as a Programming Paradigm. *Proceedings of the 11th ACM SIGPLAN Conference on Principles and Practice of Declarative Programming (PPDP'09)*, pp. 61–72, ACM, 2009.
- [165] W. Faber and S. Woltran. Manifold Answer-Set Programs for Meta-reasoning. *Proceedings of the 10th International Conference on Logic Programming and Nonmonotonic Reasoning (LP-NMR'09)*, pp. 115–128, Springer LNAI 5753, 2009.
- [166] R. Pichler, S. Rümmele and S. Woltran. Belief Revision with Bounded Treewidth. *Proceedings of the 10th International Conference on Logic Programming and Nonmonotonic Reasoning (LP-NMR'09)*, pp. 250–263, Springer LNAI 5753, 2009.
- [167] J. Oetsch, M. Seidl, H. Tompits and S. Woltran. ccT on Stage: Generalised Uniform Equivalence Testing for Verifying Student Assignment Solutions. *Proceedings of the 10th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR'09)*, pp. 382–395, Springer LNAI 5753, 2009.
- [168] J. Delgrande, T. Schaub, H. Tompits and S. Woltran. Merging Logic Programs under Answer Set Semantics. *Proceedings of the 25th International Conference on Logic Programming (ICLP'09)*, pp. 160–174, Springer LNCS 5649, 2009.
- [169] M. Truszczyński and S. Woltran. Relativized Hyperequivalence of Logic Programs for Modular Programming. *Proceedings of the 24th International Conference on Logic Programming (ICLP'08)*, pp. 576–590, Springer LNCS 5366, 2008.
- [170] J. Pührer, H. Tompits and S. Woltran. Elimination of Disjunction and Negation in Answer-Set Programs under Hyperequivalence. *Proceedings of the 24th International Conference on Logic Programming (ICLP'08)*, pp. 561–575, Springer LNCS 5366, 2008.
- [171] U. Egly, S. Gaggl and S. Woltran. ASPARTIX: Implementing Argumentation Frameworks Using Answer-Set Programming. *Proceedings of the 24th International Conference on Logic Programming (ICLP'08)*, pp. 734–738, Springer LNCS 5366, 2008.
- [172] M. Jakl, R. Pichler, S. Rümmele and S. Woltran. Fast Counting with Bounded Treewidth. *Proceedings of the 15th International Conference on Logic for Programming, Artificial Intelligence and Reasoning (LPAR'08)*, pp. 436–450. Springer LNCS 5330, 2008.
- [173] W. Faber, H. Tompits and S. Woltran. Notions of Strong Equivalence for Logic Programs with Ordered Disjunction. *Proceedings of the 11th International Conference on Principles of Knowledge Representation and Reasoning (KR'08)*, pp. 433–443. AAAI Press, 2008.
- [174] J. Delgrande, T. Schaub, H. Tompits and S. Woltran. Belief Revision of Logic Programs under Answer Set Semantics. *Proceedings of the 11th International Conference on Principles of Knowledge Representation and Reasoning (KR'08)*, pp. 411–421. AAAI Press, 2008.
- [175] M. Truszczyński and S. Woltran. Hyperequivalence of Logic Programs with Respect to Supported Models. *Proceedings of the 23rd National Conference on Artificial Intelligence (AAAI'08)*, pp. 560–565, AAAI Press, 2008.

- [176] R. Pichler, A. Polleres, F. Wei and S. Woltran. Entailment for Domain-restricted RDF. *Proceedings of the 5th Annual European Semantic Web Conference (ESWC'08)*, pp. 200–214, Springer LNCS 5021, 2008.
- [177] M. Gebser, T. Schaub, H. Tompits and S. Woltran. Alternative Characterizations for Program Equivalence under Answer-Set Semantics based on Unfounded Sets. *Proceedings of the 5th International Symposium on Foundations of Information and Knowledge Systems (FoIKS'08)*, pp. 24–41, Springer LNCS 4932, 2007.
- [178] J. Oetsch, M. Seidl, H. Tompits and S. Woltran. Testing Relativised Uniform Equivalence under Answer-Set Projection in the System ccT . *17th International Conference on Applications of Declarative Programming and Knowledge Management (INAP'07) and 21st Workshop on Logic Programming (WLP'07), Revised Selected Papers*, pp. 241–246, Springer LNCS 5473, 2008.
- [179] M. Gebser, J. Pührer, T. Schaub, H. Tompits and S. Woltran. spock: A Debugging Support Tool for Logic Programs under the Answer-Set Semantics. *17th International Conference on Applications of Declarative Programming and Knowledge Management (INAP'07) and 21st Workshop on Logic Programming (WLP'07), Revised Selected Papers*, pp. 247–252, Springer LNCS 5473, 2008.
- [180] J. Oetsch, M. Seidl, H. Tompits and S. Woltran. An Extension of the System ccT for Testing Relativised Uniform Equivalence under Answer-Set Projection. *Proceedings of the 16th International Conference on Computing (CIC'07)*, IEEE Computer Society Press, 2007.
- [181] J. Oetsch, H. Tompits and S. Woltran. Facts do not Cease to Exist Because They are Ignored: Relativised Uniform Equivalence with Answer-Set Projection. *Proceedings of the 22nd National Conference on Artificial Intelligence (AAAI'07)*, pp. 458–464, AAAI Press, 2007.
- [182] M. Brain, M. Gebser, J. Pührer, T. Schaub, H. Tompits and S. Woltran. Debugging ASP programs by Means of ASP. *Proceedings of the 9th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR'07)*, pp. 31–43, Springer LNAI 4483, 2007.
- [183] M. Fink, R. Pichler, H. Tompits and S. Woltran. Complexity of Rule Redundancy in Non-Ground Answer-Set Programming over Finite Domains. *Proceedings of the 9th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR'07)*, pp. 123–135, Springer LNAI 4483, 2007.
- [184] T. Janhunen, E. Oikarinen, H. Tompits and S. Woltran. Modularity Aspects of Disjunctive Stable Models. *Proceedings of the 9th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR'07)*, pp. 175–187, Springer LNAI 4483, 2007.
- [185] T. Eiter, M. Fink, H. Tompits and S. Woltran. Complexity Results for Checking Equivalence of Stratified Logic Programs. *Proceedings of the 20th International Joint Conference on Artificial Intelligence (IJCAI'07)*, pp. 330–335, AAAI Press, 2007.
- [186] J. Oetsch, M. Seidl, H. Tompits and S. Woltran. ccT : A Tool for Checking Advanced Correspondence Problems in Answer-Set Programming. *Proceedings of the 15th International Conference on Computing (CIC'06)*, pp. 3–10, IEEE Computer Society Press, 2006.
- [187] U. Egly and S. Woltran. Reasoning in Argumentation Frameworks Using Quantified Boolean Formulas. *Proceedings of the 1st International Conference on Computational Models of Argument (COMMA'06)*, pp. 133–144, IOS Press, 2006.

- [188] T. Eiter, P. Traxler and S. Woltran. An Implementation for Recognizing Rule Replacements in Non-Ground Answer-Set Programs. *Proceedings of the 10th European Conference on Logics in Artificial Intelligence (JELIA'06)*, pp. 477–480, Springer LNCS 4160, 2006.
- [189] J. Oetsch, M. Seidl, H. Tompits and S. Woltran. ccT: A Correspondence-Checking Tool for Logic Programs under the Answer-Set Semantics. *Proceedings of the 10th European Conference on Logics in Artificial Intelligence (JELIA'06)*, pp. 502–505, Springer LNCS 4160, 2006.
- [190] U. Egly, M. Seidl and S. Woltran. A Solver for QBFs in Nonprenex Form. *Proceedings of the 17th European Conference on Artificial Intelligence (ECAI'06)*, pp. 477–481. IOS Press, 2006.
- [191] T. Eiter, M. Fink, H. Tompits, P. Traxler and S. Woltran. Replacements in Non-Ground Answer-Set Programming. *Proceedings of the 10th International Conference on Principles of Knowledge Representation and Reasoning (KR'06)*, pp. 340–351. AAAI Press, 2006.
- [192] H. Tompits and S. Woltran. Towards Implementations for Advanced Equivalence Checking in Answer-Set Programming. *Proceedings of the 21st International Conference on Logic Programming (ICLP'05)*, pp. 189–203, Springer LNCS 3668, 2005.
- [193] T. Eiter, M. Fink, H. Tompits and S. Woltran. Strong and Uniform Equivalence in Answer-Set Programming: Characterizations and Complexity Results for the Non-Ground Case. *Proceedings of the 20th National Conference on Artificial Intelligence (AAAI'05)*, pp. 695–700, AAAI Press, 2005.
- [194] T. Eiter, H. Tompits and S. Woltran. On Solution Correspondences in Answer-Set Programming. *Proceedings of the 19th International Joint Conference on Artificial Intelligence (IJCAI'05)*, pp. 97–102, Professional Book Center, 2005.
- [195] S. Woltran. Characterizations for Relativized Notions of Equivalence in Answer Set Programming. *Proceedings of the 9th European Conference on Logics in Artificial Intelligence (JELIA'04)*, pp. 161–173, Springer LNCS 3229, 2004.
- [196] T. Linke, H. Tompits and S. Woltran. On Acyclic and Head-Cycle Free Nested Logic Programs. *Proceedings of the 20th International Conference on Logic Programming (ICLP'04)*, pp. 225–239, Springer LNCS 3132, 2004.
- [197] T. Eiter, M. Fink, H. Tompits and S. Woltran. On Eliminating Disjunctions in Stable Logic Programming. *Proceedings of the 9th International Conference on Principles of Knowledge Representation and Reasoning (KR'04)*, pp. 447–458, AAAI Press, 2004.
- [198] T. Eiter, W. Faber, M. Fink, G. Pfeifer and S. Woltran. Complexity of Answer Set Checking and Bounded Predicate Arities for Non-ground Answer Set Programming. *Proceedings of the 9th International Conference on Principles of Knowledge Representation and Reasoning (KR'04)*, pp. 377–387, AAAI Press, 2004.
- [199] V. Sarsakov, T. Schaub, H. Tompits and S. Woltran. A Compiler for Nested Logic Programming. *Proceedings of the 7th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR'03)*, pp. 361–364, Springer LNCS 2923, 2004.
- [200] T. Eiter, M. Fink, H. Tompits and S. Woltran. Simplifying Logic Programs under Uniform and Strong Equivalence. *Proceedings of the 7th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR'03)*, pp. 87–99, Springer LNCS 2923, 2004.

- [201] U. Egly, M. Seidl, H. Tompits, S. Woltran and M. Zolda. Comparing Different Prenexing Strategies for Quantified Boolean Formulas. *Proceedings of the 6th International Conference on the Theory and Applications of Satisfiability Testing (SAT'03). Selected Revised Papers*, pp. 214–228, Springer LNCS 2919, 2004.
- [202] P. Besnard, T. Schaub, H. Tompits and S. Woltran. Paraconsistent Reasoning via Quantified Boolean Formulas, II: Circumscribing Inconsistent Theories. *Proceedings of the 7th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQA-RU'03)*, pp. 528–539, Springer LNCS 2711, 2003.
- [203] P. Besnard, T. Schaub, H. Tompits and S. Woltran. Paraconsistent Reasoning via Quantified Boolean Formulas, I: Axiomatising Signed Systems. *Proceedings of the 8th European Conference on Logics in Artificial Intelligence (JELIA'02)*, pp. 320–331, Springer LNCS 2424, 2002.
- [204] D. Pearce, V. Sarsakov, T. Schaub, H. Tompits and S. Woltran. A Polynomial Translation of Logic Programs with Nested Expressions into Disjunctive Logic Programs: Preliminary Report. *Proceedings of the 18th International Conference on Logic Programming (ICLP'02)*, pp. 405–420, Springer LNCS 2401, 2002.
- [205] T. Eiter, V. Klotz, H. Tompits and S. Woltran. Modal Nonmonotonic Logics Revisited: Efficient Encodings for the Basic Reasoning Tasks. *Proceedings of the 11th Conference on Automated Reasoning with Analytic Tableaux and Related Methods (TABLEAUX'02)*, pp. 100–114, Springer LNCS 2381, 2002.
- [206] J. Delgrande, T. Schaub, H. Tompits and S. Woltran. On Computing Solutions to Belief Change Scenarios. *Proceedings of the 6th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU'01)*, pp. 510–521, Springer LNCS 2143, 2001.
- [207] D. Pearce, H. Tompits and S. Woltran. Encodings for Equilibrium Logic and Logic Programs with Nested Expressions. *Proceedings of the 10th Portuguese Conference on Artificial Intelligence (EPIA'01)*, pp. 306–320, Springer LNCS 2258, 2001.
- [208] U. Egly, T. Eiter, H. Tompits and S. Woltran. Solving Advanced Reasoning Tasks using Quantified Boolean Formulas. *Proceedings of the 17th National Conference on Artificial Intelligence (AAAI'00)*, pp. 417–422, AAAI/MIT Press, 2000.

Symposia and Workshops

- [209] M. Diller, W. Dvořák, J. Pührer, J. Wallner and S. Woltran. Application of ASP in Formal Argumentation. *Proceedings of the 2nd Workshop on Trends and Applications of Answer Set Programming (TAASP'18)*, 2018.
- [210] M. Bichler, M. Morak and S. Woltran. selp: A Single-Shot Epistemic Logic Program Solver. *Proceedings of the 11th Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP'18)*, 2018.
- [211] A. Haret and S. Woltran. Belief Revision Operators with Varying Attitudes Towards Initial Beliefs. *Proceedings of the 17th International Workshop on Non-Monotonic Reasoning (NMR'18)*, pp. 156–165, 2018.

- [212] J. Maly and S. Woltran. A New Logic for Jointly Representing Hard and Soft Constraints. *Proceedings of the Second Workshop on Logics for Reasoning about Preferences, Uncertainty, and Vagueness (PRUV'18)*, CEUR Workshop Proceedings, Volume 2157, 2018.
- [213] W. Dvořák, A. Greßler and S. Woltran. Evaluating SETAFs via Answer-Set Programming. *Proceedings of the Second International Workshop on Systems and Algorithms for Formal Argumentation (SAFA'18)*, pp. 10–21, CEUR Workshop Proceedings, Volume 2171, 2018.
- [214] G. Charwat and S. Woltran. Expansion-based QBF Solving on Tree Decompositions *Proceedings of the 24th RCRA International Workshop on Experimental Evaluation of Algorithms for Solving Problems with Combinatorial Explosion (RCRA 2017)*, pp. 16–26, CEUR Workshop Proceedings, Volume 2011, 2017.
- [215] B. Bliem, M. Moldovan, M. Morak and S. Woltran. The Impact of Treewidth on ASP Grounding and Solving. *Proceedings of the 4th International Workshop on Grounding and Transformations for Theories with Variables (GTTV'17)*, 2017.
- [216] J. Fichte, M. Kronegger and S. Woltran. A Multiparametric View on Answer Set Programming. *Proceedings of the 10th Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP'17)*. CEUR Workshop Proceedings, Volume 1868, 2017.
- [217] A. Haret and S. Woltran. Deviation in Belief Change on Fragments of Propositional Logic. *Proceedings of the 6th Workshop on Dynamics of Knowledge and Belief (DKB'17) and the 5th Workshop KI & Kognition (KIK'17)*. pp. 64–76, CEUR Workshop Proceedings, Volume 1928, 2017.
- [218] J. Maly and S. Woltran. Ranking Specific Sets of Objects. *BTW (Workshops) 2017*, pp. 193–201, GI 2017.
- [219] G. Charwat and S. Woltran. Dynamic Programming-based QBF Solving. *Proceedings of the 4th International Workshop on Quantified Boolean Formulas (QBF 2016)*, pp. 27–40, CEUR Workshop Proceedings, Volume 1719, 2016.
- [220] J. Fichte, M. Hecher, M. Morak and S. Woltran. Counting Answer Sets via Dynamic Programming. *Proceedings of the 1st Workshop on Trends and Applications of Answer Set Programming (TAASP'16)*, arXiv: 1612.07601, 2016.
- [221] B. Bliem, S. Ordyniak and S. Woltran. Clique-Width and Directed Width Measures for Answer-Set Programming. *Proceedings of the 1st Workshop on Trends and Applications of Answer Set Programming (TAASP'16)*, arXiv:1606.09449, 2016.
- [222] M. Bichler, M. Morak and S. Woltran. Ipopt: A Rule Optimization Tool for Answer Set Programming. *Pre-proceedings of the 26th International Symposium on Logic-Based Program Synthesis and Transformation (LOPSTR'16)*, arXiv:1608.02534, 2016.
- [223] S. Gaggl, T. Linsbichler, M. Maratea and S. Woltran. Introducing the Second International Competition on Computational Models of Argumentation. *Proceedings of the First International Workshop on Systems and Algorithms for Formal Argumentation (SAFA'16)*, pp. 4–9, CEUR Workshop Proceedings, Volume 1672, 2016.

- [224] T. Linsbichler and S. Woltran. Revision of Abstract Dialectical Frameworks: Preliminary Report. *Proceedings of the IJCAI-16 Workshop on Argumentation in Logic Programming and Non-Monotonic Reasoning (Arg-LPNMR'16)*, 2016.
- [225] B. Bliem, G. Charwat, M. Hecher and S. Woltran. Subset Minimization in Dynamic Programming on Tree Decompositions. *Proceedings of the AAAI-16 Workshop on Beyond NP*, 2016.
- [226] R. Baumann, T. Linsbichler and S. Woltran. Verifiability of Argumentation Semantics. *Proceedings of the 16th International Workshop on Non-Monotonic Reasoning (NMR'16)*, pp. 5–14. CoRR abs/1603.09502.
- [227] A. Haret, J. Mailly and S. Woltran. Distributing Knowledge into Simple Bases. *Proceedings of the 16th International Workshop on Non-Monotonic Reasoning (NMR'16)*, pp. 55–64. CoRR abs/1603.09511.
- [228] M. Giacomini, T. Linsbichler and S. Woltran. On the Functional Completeness of Argumentation Semantics. *Proceedings of the 5th Workshop on Dynamics of Knowledge and Belief and the 4th Workshop KI & Kognition (DKB-2015 / KIK-2015)*, pp. 43–54, CEUR Workshop Proceedings, Volume 1444, 2015.
- [229] B. Bliem, G. Charwat, M. Hecher and S. Woltran. D-FLAT²: Subset Minimization in Dynamic Programming on Tree Decompositions Made Easy. *Proceedings of the ICLP'15 Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP'15)*. Online proceedings at <https://sites.google.com/site/aspocp2015/>. 2015.
- [230] M. Abseher, M. Gebser, N. Musliu, T. Schaub and S. Woltran. Shift Design with Answer Set Programming. *Proceedings of the ICLP'15 Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP'15)*. Online proceedings at <https://sites.google.com/site/aspocp2015/>. 2015.
- [231] N. Creignou, O. Papini, S. Rümmele and S. Woltran. Belief Merging within Fragments of Propositional Logic. *15th International Workshop on Non-Monotonic Reasoning (NMR'14)*.
- [232] M. Abseher, B. Bliem, G. Charwat, F. Dusberger and S. Woltran. Computing Secure Sets in Graphs using Answer Set Programming. *Proceedings of the FLoC'14 Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP'14)*. Online proceedings at <https://sites.google.com/site/aspocp2014/>. 2014.
- [233] D. Doder and S. Woltran. Probabilistic Argumentation Frameworks - A Logical Approach. *Proceedings of the 26th Benelux Conference on Artificial Intelligence (BNAIC'14)*.
- [234] M. Abseher, B. Bliem, G. Charwat, F. Dusberger, M. Hecher and S. Woltran. ASP-based Problem Solving on Tree Decompositions. *Proceedings of the Workshop on Logic and Search – LaSh*. 2014.
- [235] P. Dunne, W. Dvořák, T. Linsbichler and S. Woltran. Characteristics of Multiple Viewpoints in Abstract Argumentation. *Proceedings of the 4th International Workshop on Dynamics of Knowledge and Belief*. 2013.
- [236] B. Bliem, R. Pichler and S. Woltran. Applicability of ASP-based Problem Solving on Tree Decompositions. *Proceedings of the 3rd International Workshop on Graph Structures for*

Knowledge Representation and Reasoning. Online proceedings at <http://www.lirmm.fr/~croitoru/GKR/GKR2013-workingNotes.pdf>. 2013.

- [237] G. Charwat, J. Wallner and S. Woltran. Utilizing ASP for Generating and Visualizing Argumentation Frameworks. *Proceedings of the ICLP'12 Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP'12)*. Online proceedings at <https://sites.google.com/site/aspocp12/proceedings/aspocp12proceedings.pdf>. 2012.
- [238] W. Dvořák, M. Jarvisalo, J. Wallner and S. Woltran. CEGARTIX: A SAT-Based Argumentation System. *Proceedings of the Pragmatics of SAT 2012 Workshop*, 2012.
- [239] M. Alviano, W. Faber and S. Woltran. Complexity of Super-Coherence Problems in Answer Set Programming *Proceedings of the 26th Italian Conference on Computational Logic (CILC'11)*. CEUR Workshop Proceedings, Volume 810, 2011.
- [240] M. Alviano, W. Faber and S. Woltran. Complexity of Super-Coherence Problems in ASP. *Proceedings of the ICLP'11 Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP'11)*. Online proceedings at <http://www.dbai.tuwien.ac.at/proj/aspocp11/accepted.html>. 2011.
- [241] W. Dvořák and S. Woltran. On the Intertranslatability of Argumentation Semantics. International Conference “30 Years of Nonmonotonic Logic”. Online proceedings at <http://sites.google.com/site/nonmonat30/conference-materials>. 2010.
- [242] R. Pichler, A. Polleres, S. Skritek and S. Woltran. Minimising RDF Graphs under Rules and Constraints Revisited. *Proceedings of the 4th Alberto Mendelzon International Workshop on Foundations of Data Management (AMW'10)*, CEUR Workshop Proceedings, Volume 619, 2010.
- [243] W. Faber and S. Woltran. A Framework for Programming with Module Consequences. *Proceedings of the LPNMR'09 Workshop on Software Engineering for Answer Set Programming (SEA'09)*, pp. 34–48, 2009.
- [244] W. Faber and S. Woltran. Manifold Answer-Set Programs for Meta-Reasoning. *Proceedings of the IJCAI-09 Workshop on Nonmonotonic Reasoning, Action and Change (NRAC'09)*, pp. 33–40, 2009.
- [245] U. Egly, S. Gaggl and S. Woltran. Answer-Set Programming Encodings for Argumentation Frameworks. *Proceedings of the ICLP'08 Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP'08)*, pp. 1–15, 2008.
- [246] W. Faber, H. Tompits and S. Woltran. Characterizing Notions of Strong Equivalence for Logic Programs with Ordered Disjunctions. *Proceedings of the VLDB'07 Workshop on Advances in Preference Handling (M-PREF)*, 8 pages, 2007.
- [247] J. Oetsch, M. Seidl, H. Tompits and S. Woltran. Testing Relativised Uniform Equivalence under Answer-Set Projection in the System $cc\perp$. *Proceedings of the 17th International Conference on Applications of Declarative Programming and Knowledge Management (INAP'07) and 21st Workshop on (Constraint) Logic Programming (WLP'07)*, pp. 254–258, 2007.

- [248] M. Gebser, J. Pührer, T. Schaub, H. Tompits and S. Woltran. spock: A Debugging Support Tool for Logic Programs under the Answer-Set Semantics *Proceedings of the 17th International Conference on Applications of Declarative Programming and Knowledge Management (INAP'07) and 21st Workshop on (Constraint) Logic Programming (WLP'07)*, pp. 258–262, 2007.
- [249] S. Woltran. A Common View on Strong, Uniform, and Other Notions of Equivalence in Answer-Set Programming. *Proceedings of the LPNMR'07 Workshop on Correspondence and Equivalence for Nonmonotonic Theories (CENT)*, pp. 13–24, 2007.
- [250] J. Oetsch, H. Tompits and S. Woltran. Facts do not Cease to Exist Because They are Ignored: Relativised Uniform Equivalence with Answer-Set Projection. *Proceedings of the LPNMR'07 Workshop on Correspondence and Equivalence for Nonmonotonic Theories (CENT)*, pp. 25–36, 2007.
- [251] M. Gebser, T. Schaub, H. Tompits and S. Woltran. Alternative Characterizations for Program Equivalence under Answer-Set Semantics: Preliminary Report. *Proceedings of the LPNMR'07 Workshop on Correspondence and Equivalence for Nonmonotonic Theories (CENT)*, pp. 37–48, 2007.
- [252] D. Pearce, H. Tompits and S. Woltran. Relativised Equivalence in Equilibrium Logic and its Applications to Prediction and Explanation: Preliminary Report. *Proceedings of the LPNMR'07 Workshop on Correspondence and Equivalence for Nonmonotonic Theories (CENT)*, pp. 49–60, 2007.
- [253] M. Brain, M. Gebser, J. Pührer, T. Schaub, H. Tompits and S. Woltran. “That is illogical Captain!” – The Debugging Support Tool spock for Answer-Set Programs: System Description. *Proceedings of the LPNMR'07 Workshop on Software Engineering for Answer Set Programming (SEA'07)*, pp. 71–85, 2007.
- [254] U. Egly, M. Seidl and S. Woltran. A Solver for QBFs in Nonprenex Form: Overview and Experimental Results. *Proceedings of the Guangzhou Symposium on Satisfiability in Logic-Based Modeling*, pp. 65–76, 2006.
- [255] J. Oetsch, M. Seidl, H. Tompits and S. Woltran. ccT: A Tool for Checking Advanced Correspondence Problems in Answer-Set Programming. *Proceedings of the ICLP'06 Workshop on Search and Logic – Answer Set Programming and SAT*, pp. 77–92, 2006.
- [256] J. Oetsch, M. Seidl, H. Tompits and S. Woltran. A Tool for Advanced Correspondence Checking in Answer-Set Programming. *Proceedings of the 11th International Workshop on Non-Monotonic Reasoning (NMR'06)*, pp. 20–29, 2006.
- [257] T. Eiter, M. Fink, H. Tompits, P. Traxler and S. Woltran. Replacements in Non-Ground Answer-Set Programming. *Proceedings of the 20th Workshop on Logic Programming (WLP'06)*, pp. 145–153, 2006.
- [258] J. Oetsch, M. Seidl, H. Tompits and S. Woltran. A Tool for Advanced Correspondence Checking in Answer-Set Programming: Preliminary Experimental Results. *Proceedings of the 20th Workshop on Logic Programming (WLP'06)*, pp. 200–205, 2006.
- [259] H. Tompits and S. Woltran. Towards Implementations for Advanced Equivalence Checking in Answer-Set Programming. *Proceedings of the Annual Meeting of WASP, the European Working group on Answer Set Programming (ASP'05)*, pp. 115–129, 2005.

- [260] T. Linke, H. Tompits and S. Woltran. On Acyclic and Head-Cycle Free Nested Logic Programs. In *Proceedings of the 10th International Workshop on Non-Monotonic Reasoning (NMR'04)*, pp. 267–275, 2004.
- [261] T. Eiter, W. Faber, M. Fink, G. Pfeifer and S. Woltran. Complexity of Answer Set Checking and Bounded Predicate Arities for Non-ground Answer Set Programming. *Proceedings of the Annual Meeting of WASP, the European Working group on Answer Set Programming. (ASP'03)*, pp. 69–83, 2003.
- [262] T. Eiter, M. Fink, H. Tompits and S. Woltran. Eliminating Disjunction from Propositional Logic Programs under Stable Model Preservation. *Proceedings of the Annual Meeting of WASP, the European Working group on Answer Set Programming. (ASP'03)*, pp. 151–165, 2003.
- [263] U. Egly, M. Seidl, H. Tompits, S. Woltran and M. Zolda. Comparing Different Prenexing Strategies for Quantified Boolean Formulas. *Proceedings of the 6th International Conference on the Theory and Applications of Satisfiability Testing (SAT'03)*, pp. 370–378, 2003.
- [264] P. Besnard, T. Schaub, H. Tompits and S. Woltran. Paraconsistent Reasoning via Quantified Boolean Formulas, II: Circumscribing Inconsistent Theories. *Proceedings of the III World Congress on Paraconsistency (WCP'03)*, pp. 73–84, 2003.
- [265] D. Pearce, V. Sarsakov, T. Schaub, H. Tompits and S. Woltran. On Implementing Nested Logic Programs: Overview and Comparisons. *Proceedings of the 17th Workshop on Logic Programming and Constraint Systems (WLP'02)*. ISSN 1430–211X, pp. 81–95, 2003.
- [266] P. Besnard, T. Schaub, H. Tompits and S. Woltran. Paraconsistent Reasoning via Quantified Boolean Formulas, I: Axiomatising Signed Systems. *Proceedings of the ICLP'02 Workshop on Paraconsistent Computational Logic (PCL'02)*, pp. 1–16, 2002.
- [267] U. Egly, R. Pichler and S. Woltran. On Deciding Subsumption Problems. In *Proceedings of the 5th International Symposium on the Theory and Applications of Satisfiability Testing (SAT'02)*, pp. 89–97, 2002.
- [268] U. Egly, H. Tompits and S. Woltran. On Quantifier Shifting for Quantified Boolean Formulas. *Proceedings of the SAT'02 Workshop on Theory and Applications of Quantified Boolean Formulas*, pp. 48–61, 2002.
- [269] D. Pearce, V. Sarsakov, T. Schaub, H. Tompits and S. Woltran. A Polynomial Translation of Logic Programs with Nested Expressions into Disjunctive Logic Programs: Preliminary Report. *Proceedings of the 9th International Workshop on Non-Monotonic Reasoning (NMR'02)*, pp. 405–420, 2002.
- [270] U. Egly, T. Eiter, V. Klotz, H. Tompits and S. Woltran. Computing Stable Models with Quantified Boolean Formulas: Some Experimental Results. *Proceedings AAAI 2001 Spring Symposium on Answer Set Programming*, pp. 417–422, 2001.
- [271] U. Egly, V. Klotz, H. Tompits and S. Woltran. A Toolbox for Abduction: Preliminary Report. *Proceedings of the IJCAR 2001 Workshop on Theory and Applications of Quantified Boolean Formulas*, pp. 29–39, 2001.

- [272] U. Egly, T. Eiter, R. Feldmann, V. Klotz, S. Schamberger, H. Tompits and S. Woltran. On Mechanizing Modal Nonmonotonic Logics. *Proceedings of the 5th Dutch-German Workshop on Nonmonotonic Reasoning Techniques and their Applications* (DGNMR'01), pp. 44–53, 2001.
- [273] U. Egly, T. Eiter, H. Tompits and S. Woltran. QUIP–A Tool for Computing Nonmonotonic Reasoning Tasks. *Proceedings of the 8th International Workshop on Non-Monotonic Reasoning* (NMR'00), 2000.
- [274] U. Egly, T. Eiter, V. Klotz, H. Tompits and S. Woltran. Experimental Evaluation of the Disjunctive Logic Programming Module of the System QUIP. *Proceedings of the 15th Workshop on Logic Programming and Constraint Systems* (WLP'00). GMD Report 110, pp. 113–122, 2000.
- [275] U. Egly, T. Eiter, H. Tompits and S. Woltran. Implementing Default Reasoning Using Quantified Boolean Formulae. *Proceedings of the 14th Workshop on Logic Programming* (WLP-99/00). GMD Report 90, pp. 223–225, 2000.

Qualifying Academic Treaties

- [276] S. Woltran. *Contributions to Advanced Equivalence Checking in Answer Set Programming*. Habilitationsschrift, Technische Universität Wien, Fakultät für Informatik, 2008.
- [277] S. Woltran. *Quantified Boolean Formulas – From Theory to Practice*. PhD Thesis, Technische Universität Wien, Institut für Informationssysteme, 2003.
- [278] S. Woltran. *A Framework for Solving Advanced Reasoning Tasks*. Master Thesis, Technische Universität Wien, Institut für Informationssysteme, 2001.

Further Publications and Manuscripts

- [279] S. Woltran. Wer hat Angst vor künstlichen Vögeln. Zum aktuellen Stand der KI-Forschung. *springerin* 8–9, 1/2018.
- [280] B. Bliem, M. Moldovan and S. Woltran. The D-FLAT System: User Manual. Technical Report DBAI-TR-2017-107, Technische Universität Wien, Institut für Informationssysteme, 2017.
- [281] M. Diller, A. Haret, T. Linsbichler, S. Rümmele and S. Woltran. An Extension-Based Approach to Belief Revision in Abstract Argumentation. Technical Report DBAI-TR-2017-106, Technische Universität Wien, Institut für Informationssysteme, 2017.
- [282] R. Baumann, W. Dvořák, T. Linsbichler and S. Woltran. A General Notion of Equivalence for Abstract Argumentation. Technical Report DBAI-TR-2017-105, Technische Universität Wien, Institut für Informationssysteme, 2017.
- [283] R. Baumann, W. Dvořák, T. Linsbichler, C. Spanring, H. Strass and S. Woltran. On Rejected Arguments and Implicit Conflicts: The Hidden Power of Argumentation Semantics. Technical Report DBAI-TR-2016-102, Technische Universität Wien, Institut für Informationssysteme, 2016.
- [284] J. Fichte, M. Hecher, M. Morak and S. Woltran. Answer Set Solving using Tree Decompositions and Dynamic Programming – The DynASP2 System. Technical Report DBAI-TR-2016-101, Technische Universität Wien, Institut für Informationssysteme, 2016.

- [285] J. Delgrande, P. Peppas and S. Woltran. General Belief Revision. Technical Report DBAI-TR-2016-100, Technische Universität Wien, Institut für Informationssysteme, 2016.
- [286] J. Fichte, M. Kronegger and S. Woltran. Multiparametric View on Answer Set Programming. Technical Report DBAI-TR-2016-99, Technische Universität Wien, Institut für Informationssysteme, 2016.
- [287] M. Bichler, B. Bliem, M. Moldovan, M. Morak and S. Woltran. Treewidth-Preserving Modeling in ASP. Technical Report DBAI-TR-2016-97, Technische Universität Wien, Institut für Informationssysteme, 2016.
- [288] M. Abseher, N. Musliu and S. Woltran. htd - A Free, Open-Source Framework for Tree Decompositions and Beyond. Technical Report DBAI-TR-2016-96, Technische Universität Wien, Institut für Informationssysteme, 2016.
- [289] G. Charwat and S. Woltran. BDD-based Dynamic Programming on Tree Decompositions. Technical Report DBAI-TR-2016-95, Technische Universität Wien, Institut für Informationssysteme, 2016.
- [290] M. Abseher, N. Musliu and S. Woltran. Improving the Efficiency of Dynamic Programming on Tree Decompositions via Machine Learning. Technical Report DBAI-TR-2016-94, Technische Universität Wien, Institut für Informationssysteme, 2016.
- [291] B. Bliem, G. Charwat, M. Hecher and S. Woltran. D-FLAT²: Subset Minimization in Dynamic Programming on Tree Decompositions Made Easy. Technical Report DBAI-TR-2015-93, Technische Universität Wien, Institut für Informationssysteme, 2015.
- [292] S. Gaggl, N. Manthey, A. Ronca, J. Wallner and S. Woltran. Improved Answer-Set Programming Encodings for Abstract Argumentation. Technical Report DBAI-TR-2015-92, Technische Universität Wien, Institut für Informationssysteme, 2015.
- [293] A. Haret, S. Rümmele and S. Woltran. Merging in the Horn Fragment. Technical Report DBAI-TR-2015-91, Technische Universität Wien, Institut für Informationssysteme, 2015.
- [294] P. Dunne, W. Dvořák, T. Linsbichler, and S. Woltran. Characteristics of Multiple Viewpoints in Abstract Argumentation. Technical Report DBAI-TR-2015-89, Technische Universität Wien, Institut für Informationssysteme, 2015.
- [295] M. Abseher, B. Bliem, G. Charwat, F. Dusberger, M. Hecher and S. Woltran. D-FLAT: Progress Report. Technical Report DBAI-TR-2013-86, Technische Universität Wien, Institut für Informationssysteme, 2014.
- [296] R. Lemmel-Seedorf, T. Pock and S. Woltran. Eine guter START für die Wissenschaft. *OCG Journal* 38(2):15–16, 2013.
- [297] T. Eiter, M. Fink, J. Pührer, H. Tompits and S. Woltran. Model-Based Recasting in Answer-Set Programming. Technical Report DBAI-TR-2013-83, Technische Universität Wien, Institut für Informationssysteme, 2013.
- [298] G. Charwat, W. Dvořák, S. Gaggl, J. Wallner and S. Woltran. Implementing Abstract Argumentation - A Survey. Technical Report DBAI-TR-2013-82, Technische Universität Wien, Institut für Informationssysteme, 2013.

- [299] W. Faber, M. Truszczyński und S. Woltran. Abstract Preference Frameworks - a Unifying Perspective on Separability and Strong Equivalence. Technical Report DBAI-TR-2013-81, Technische Universität Wien, Institut für Informationssysteme, 2013.
- [300] W. Dvořák, S. Szeider and S. Woltran. Abstract Argumentation via Monadic Second Order Logic. Technical Report DBAI-TR-2012-79, Technische Universität Wien, Institut für Informationssysteme, 2012.
- [301] S. Gaggl and S. Woltran. The cf2 Argumentation Semantics Revisited. Technical Report DBAI-TR-2012-77, Technische Universität Wien, Institut für Informationssysteme, 2012.
- [302] N. Creignou, O. Papini, R. Pichler and S. Woltran. Belief Revision within Fragments of Propositional Logic. Technical Report DBAI-TR-2012-75, Technische Universität Wien, Institut für Informationssysteme, 2012.
- [303] W. Dvořák, R. Pichler and S. Woltran. Towards Fixed-Parameter Tractable Algorithms for Abstract Argumentation. Technical Report DBAI-TR-2011-74, Technische Universität Wien, Institut für Informationssysteme, 2011.
- [304] M. Morak, N. Musliu, S. Rümmele, S. Woltran and R. Pichler. Evaluating Tree-Decomposition Based Algorithms for Answer Set Programming. Technical Report DBAI-TR-2011-73, Technische Universität Wien, Institut für Informationssysteme, 2011.
- [305] M. Morak and S. Woltran. Preprocessing of Complex Non-Ground Rules in Answer Set Programming. Technical Report DBAI-TR-2011-72, Technische Universität Wien, Institut für Informationssysteme, 2011.
- [306] W. Dvořák, S. Szeider and S. Woltran. Reasoning in Argumentation Frameworks of Bounded Clique-Width. Technical Report DBAI-TR-2011-71, Technische Universität Wien, Institut für Informationssysteme, 2011.
- [307] W. Dvořák, S. Gaggl, J. Wallner and S. Woltran. Making Use of Advances in Answer-Set Programming for Abstract Argumentation Systems. Technical Report DBAI-TR-2011-70, Technische Universität Wien, Institut für Informationssysteme, 2011.
- [308] S. Gaggl and S. Woltran. Strong Equivalence for Argumentation Semantics based on Conflict-free Sets. Technical Report DBAI-TR-2011-68, Technische Universität Wien, Institut für Informationssysteme, 2011.
- [309] R. Pichler, A. Polleres, S. Skritek and S. Woltran. Redundancy Elimination on RDF Graphs in the Presence of Rules, Constraints, and Queries. Technical Report DERI 2010-04-23, Digital Enterprise Research Institute, Galway, Ireland, 2010.
- [310] R. Pichler, S. Rümmele and S. Woltran. Multicut Algorithms via Tree Decompositions. Technical Report DBAI-TR-2009-67, Technische Universität Wien, Institut für Informationssysteme, 2009.
- [311] W. Dvořák and S. Woltran. Technical Note: Complexity of Stage Semantics in Argumentation Frameworks. Technical Report DBAI-TR-2009-66, Technische Universität Wien, Institut für Informationssysteme, 2009.

- [312] W. Dvořák, G. Gottlob, R. Pichler and S. Woltran. Alternation as a Programming Paradigm. Technical Report DBAI-TR-2008-64, Technische Universität Wien, Institut für Informationssysteme, 2009.
- [313] M. Truszczyński and S. Woltran. Relativized Hyperequivalence of Logic Programs for Modular Programming. Technical Report DBAI-TR-2009-63, Technische Universität Wien, Institut für Informationssysteme, 2008.
- [314] U. Egly, S. Gaggl and S. Woltran. Answer-Set Programming Encodings for Argumentation Frameworks. Technical Report DBAI-TR-2008-62, Technische Universität Wien, Institut für Informationssysteme, 2008.
- [315] M. Jakl, R. Pichler, S. Rümmele and S. Woltran. Fast Counting with Bounded Treewidth. Technical Report DBAI-TR-2008-61, Technische Universität Wien, Institut für Informationssysteme, 2008.
- [316] P. Besnard, A. Hunter and S. Woltran. Encoding Deductive Argumentation in Quantified Boolean Formulae. Technical Report DBAI-TR-2008-60, Technische Universität Wien, Institut für Informationssysteme, 2008.
- [317] U. Egly, M. Seidl and S. Woltran. A Solver for QBFs in Negation Normal Form. Technical Report INFSYS RR-1843-08-03, Technische Universität Wien, Institut für Informationssysteme, 2008.
- [318] R. Pichler, A. Polleres, F. Wei and S. Woltran. Entailment for Domain-restricted RDF. Technical Report DBAI-TR-2008-59, Technische Universität Wien, Institut für Informationssysteme, 2008.
- [319] M. Truszczyński and S. Woltran. Hyperequivalence of Logic Programs with Respect to Supported Models. Technical Report DBAI-TR-2008-58, Technische Universität Wien, Institut für Informationssysteme, 2008.
- [320] D. Pearce, H. Tompits and S. Woltran. Characterising Equilibrium Logic and Nested Logic Programs: Reductions and Complexity. Technical Report GIA-TR-2007-12-01. Universidad Rey Juan Carlos, Grupo de Inteligencia Artificial, 2007.
- [321] T. Eiter, M. Fink and S. Woltran. Semantical Characterizations and Complexity of Equivalences in Answer Set Programming. Technical Report INFSYS RR-1843-05-01, Technische Universität Wien, Institut für Informationssysteme, 2005.
- [322] W. Faber and S. Woltran. KR 2004 — Konferenzbericht. *ÖGAI Journal* 23(2):24–27, 2004.
- [323] T. Eiter, M. Fink, H. Tompits and S. Woltran. On Eliminating Disjunctions in Stable Logic Programming. Technical Report INFSYS RR-1843-03-12, Technische Universität Wien, Institut für Informationssysteme.
- [324] T. Eiter, W. Faber, M. Fink, G. Pfeifer and S. Woltran. Complexity of Answer Set Checking and Bounded Predicate Arities for Non-Ground Answer Set Programming. Technical Report INFSYS RR-1843-03-11, Technische Universität Wien, Institut für Informationssysteme, 2003.
- [325] U. Egly, R. Pichler and S. Woltran. On Deciding Subsumption Problems. Technical Report INFSYS RR-1843-03-04, Technische Universität Wien, Institut für Informationssysteme, 2003.

- [326] J. Delgrande, T. Schaub, H. Tompits and S. Woltran. On Computing Solutions to Belief Change Scenarios. Technical Report INFSYS RR-1843-03-03, Technische Universität Wien, Institut für Informationssysteme, 2002.
- [327] D. Pearce, V. Sarsakov, T. Schaub, H. Tompits and S. Woltran. A Polynomial Translation of Logic Programs with Nested Expressions into Disjunctive Logic Programs. Technical Report INFSYS RR-1843-02-15, Technische Universität Wien, Institut für Informationssysteme, 2002.
- [328] S. Woltran. A Framework for Solving Advanced Reasoning Tasks - Summary of the Thesis. *ÖGAI Journal*, 21(4):29–33, 2002.
- [329] S. Woltran. Konferenzbericht FLOC-2002. *ÖGAI Journal*, 21(3):23–25, 2002.
- [330] S. Woltran. Die Federated Logic Conference (FLoC). *Computer kommunikativ* 5:27–28, 2002.
- [331] V. Klotz and S. Woltran. IJCAR’2001 – Konferenzbericht. *ÖGAI Journal*, 20(4):23–24, 2001.
- [332] L. Casey, H. Tompits and S. Woltran. AAI’2000 – Konferenzbericht. *ÖGAI Journal*, 19(3):5–7, 2000.

Appearance in Media

- [333] Interview: Ein Algorithmus für Fantasie. Wiener Zeitung (Print Edition, October 13th, 2018).
Online: https://www.wienerzeitung.at/dossiers/gehirn/995694_Ein-Algorithmus-fuer-Fantasie.html
- [334] Der nächste Sprung. Die Furche (Print Edition, March 1st, 2018), S. 4–5.
Online: <http://www.furche.at/system/showthread.php?t=73262>
- [335] Radiointerview “Künstliche Intelligenz ist fast allgegenwärtig”. Radio Dispositiv; Radio Orange 94.0. Broadcast on Dezember 25th 2017, 10:00.
- [336] Interview “... und dann werden Systeme sozusagen von selber gscheit”. i-presse. Magazin zur Digitalisierung der Wirtschaft, Die Presse, Juni 2017. S. 124–125.
- [337] Interview “Logische und statistische Ansätze kombinieren”. Relevant. Das Magazin der Oesterreichischen Kontrollbank Gruppe #4, 2016. S. 12–13.
Online: <http://www.oekb.at/de/osn/DownloadCenter/RELEVANT/RELEVANT-4-2016.pdf>.
- [338] Baumberechnung am Datenberg. Der Standard (Print Edition, 28. August 2014).
Online: <http://derstandard.at/1376534799437/Baumberechnung-am-Datenberg>
- [339] 4. Wiener Zukunftspreis. Vorstellung der Projekte. (NEWS 35/2009 S. 54f)
- [340] Interview “Argument A ’attackiert’ das Argument B”. (derStandard.at, 4. März 2009).
<http://derstandard.at/?url=/?id=1234508562546>