

# Curriculum Vitae of Johannes Peter Wallner

Address: TU Wien  
(Vienna University of Technology)  
Institute of Logic and Computation  
Database and Artificial Intelligence Group  
Favoritenstraße 9  
A-1040 Vienna, Austria  
Phone: +43-1-58801-18469  
Fax: +43-1-58801-9-18469  
E-Mail: wallner@dbai.tuwien.ac.at  
Website: <http://www.jpwallner.name>  
Citizenship: Austria  
Birthday: 13.5.1984

## Education

- 2011 – 2014 **Ph.D. study** at TU Vienna. Received degree: Dr. techn., passed with distinction (28.5.2014). Thesis: *Complexity Results and Algorithms for Argumentation - Dung's Frameworks and Beyond*. Supervisors: Prof. Dr. Stefan Woltran and Assoc. Prof. Georg Weissenbacher, D.Phil.; Assistance: Dr. Wolfgang Dvořák.
- 2008 – 2010 **Master study** "Computational Intelligence" at TU Vienna. Received degree: Dipl.-Ing. (comparable to Master of Science), passed with distinction (9.12.2010). Thesis: *A Hybrid Approach for Model-Based Random Testing*. Supervisors: Prof. Dr. Franz Wotawa and Dr. Bernhard Peischl.
- 2003 – 2008 **Bachelor study** "Software & Information Engineering" at TU Vienna. Received degree: Bachelor of Science (14.2.2008).

## Doctoral programme, visited summer schools, and certificate

- 2011 – 2014 Participation in doctoral programme *Mathematical Logic in Computer Science* at TU Vienna.
- 02/2014 Advanced winter school on reasoning engines for rigorous system engineering, ReRiSE 2014, Linz, Austria.
- 07/2013 Advanced course on AI (ACAI) 2013 summer school; student session topic: *Advanced procedures for hard problems in abstract argumentation*, London, UK.
- 06/2012 Doctoral consortium at the thirteenth conference on Principles of Knowledge Representation and Reasoning (KR) 2012. Topic: *Computational properties of abstract dialectical frameworks*, Rome, Italy.
- 2010 ISTQB certified tester (foundation level).

## Academic working experience

- 04/2017 – present **Principle investigator** in the Database and AI group, **TU Vienna**. Project: *Extending Belief Change to Advance Dynamics in Argumentation*. Funded by Austrian Science Fund (FWF) through project P30168. <http://www.dbai.tuwien.ac.at/proj/embarg/>
- 01/2017 – 04/2017 **Project assistant** in the Database and AI group, **TU Vienna**. Project: *A Semantical Framework for Graph-Based Argument Processing*. Funded by Deutsche Forschungsgemeinschaft (DFG) and Austrian Science Fund (FWF) through project I2854. Project leaders: Prof. Dr. Gerhard Brewka and Prof. Dr. Stefan Woltran.
- 04/2015 – 12/2016 **Project assistant** in the Constraint Reasoning and Optimization group, Department of Computer Science / HIIT, **University of Helsinki**. Project: *Decision Procedures for the Polynomial Hierarchy, Boolean Optimization, and Model Counting*. Funded by Academy of Finland. Project leader: Assoc. Prof. Dr. Matti Järvisalo.
- 07/2014 – 04/2015 **Project assistant** in the Database and AI group, **TU Vienna**. Project: *Fragment-Driven Belief Change*. Funded by Austrian Science Fund (FWF) through project P25521. Project leader: Prof. Dr. Stefan Woltran.
- 06/2013 – 06/2014 **Project assistant** in the Database and AI group, **TU Vienna**. International project (Germany/Austria): *Abstract Dialectical Frameworks: Advanced Tools for Formal Argumentation*. Funded by Deutsche Forschungsgemeinschaft (DFG) and Austrian Science Fund (FWF) through project I1102. Project leaders: Prof. Dr. Gerhard Brewka and Prof. Dr. Stefan Woltran.
- 09/2012 – 05/2013 **Project assistant** in the Database and AI group, **TU Vienna**. Project: *SEE: SPARQL Evaluation and Extensions*. Funded by WWTF – Wiener Wissenschafts-, Forschungs- und Technologiefonds (ICT 12-015). Project leader: Prof. Dr. Reinhard Pichler.
- 05/2011 – 08/2012 **Project assistant** in the Database and AI group, **TU Vienna**. Project: *New Methods for Analyzing, Comparing, and Solving Argumentation Problems*. Funded by WWTF – Wiener Wissenschafts-, Forschungs- und Technologiefonds (ICT 08-028). Project leader: Prof. Dr. Stefan Woltran.

## Other project activities

- 2012 – 2013 Project member in bilateral project Austria/Slovakia Project: *New Directions in Abstract Argumentation*. Funded by Slovenská akademická informaná agentúra (SAIA) and Österreichischer Austauschdienst (ÖAD); project number 2012-03-15-0001. Project coordinators: RNDr. Jozef Šiška, Comenius Univ. Bratislava and Prof. Dr. Stefan Woltran.

## Professional activities

- Program committee member (PC) of **AAAI** (2018-2020), **IJCAI** (2015-2020), **KR** (2018 & 2020), and **COMMA** (2016, 2018, & 2020). In details, I was on the PC of
  - 2021: AAAI, IJCAI (SPC), SAC (KRR track),
  - 2020: AAAI, IJCAI, KR, ECAI, COMMA, SAC (KRR track), STAIRS, ASPOCP, SAFA, RCRA,
  - 2019: AAAI, IJCAI, AAMAS (main track), LPNMR, SAC (KRR track), RCRA, ASPOCP,
  - 2018: AAAI, IJCAI, KR, COMMA, SAFA, RCRA,
  - 2017: IJCAI, IEA/AIE (track Applications of Argumentation), RCRA, TAFA,
  - 2016: IJCAI (main track), COMMA, RCRA, SAFA, TAASP,
  - 2015: IJCAI (KR track), and RCRA.
- Reviewing for journals:
  - AI Communications (2019)
  - Argument & Computation (special issues in 2016 & 2019),
  - Artificial Intelligence (2015, 2017, & 2019),
  - Journal of Artificial Intelligence Research (2019),
  - Fundamenta Informaticae (special issues in 2016 and 2018),
  - Frontiers in Computer Science: review editor (2020),
  - IfCoLog Journal of Logics and their Applications (2017),
  - International Journal of Approximate Reasoning (2015, 2017, & 2019),
  - Knowledge and Information Systems (2017), and
  - Theory and Practice of Logic Programming (special issues in 2017 & 2019).
- Further reviewing activities (e.g., sub reviewer for conferences):
  - IEA/AIE 2019, ACM Symposium on Applied Computing 2017 (KRR track), AAAI 2016, ICDT 2015, LPNMR 2015, PhDs in Logic VII, KR 2014, ESSLLI 2013, CILC 2013, LPNMR 2013, and ECAI 2012.
- AAAI 2020 Student Abstract and Poster Program, program committee member.
- Vienna Center for Logic and Algorithms (VCLA) Award Committee member for student awards 2019, 2020.
- Co-organizer of the workshop on "New Trends in Formal Argumentation 2017", Vienna.
- Fourth ASP Competition 2013, member of organizing committee.
- Assistance in writing project proposal (co-author): *Abstract Dialectical Frameworks: Advanced Tools for Formal Argumentation*. Funded by Deutsche Forschungsgemeinschaft (DFG) and Austrian Science Fund (FWF) through project I1102.

## Research visits

03/2018      Assoc. Prof. Dr. Matti Järvisalo, University of Helsinki  
04 – 06/2012   Prof. Dr. Gerhard Brewka, Leipzig University

## Scientific talks

30/04/2019    *Reasoning over Assumption-Based Argumentation Frameworks via Direct Answer Set Programming Encodings*. Second workshop on "New Trends of Formal Argumentation"

12/09/2018    *Structural Constraints for Dynamic Operators in Abstract Argumentation*. COMMA'18

10/04/2018    *Strategic manipulation when merging argumentation frameworks*. AMANDE Workshop on "Argument strength"

17/08/2017    *From structured to abstract argumentation: assumption-based acceptance via AF reasoning*. Workshop on "New Trends of Formal Argumentation"

12/07/2017    *From structured to abstract argumentation: assumption-based acceptance via AF reasoning*. ECSQARU'17

10/04/2017    *Synthesizing Argumentation Frameworks from Examples*. Workshop on "Formal Argumentation in Online Discussions"

27/04/2016    *Implicit Hitting Set Algorithms for Reasoning Beyond NP*. KR'16

15/02/2016    *Complexity Results and Algorithms for Extension Enforcement in Abstract Argumentation*. AAI'16

29/07/2015    *Complexity-Sensitive Decision Procedures for Abstract Argumentation*. IJCAI'15

25/07/2015    *Abstract Solvers for Dung's Argumentation Frameworks*. TAFE'15

22/07/2014    *Analyzing the Computational Complexity of Abstract Dialectical Frameworks via Approximation Fixpoint Theory*. KR'14

16/09/2013    *Advanced SAT Techniques for Abstract Argumentation*. CLIMA'13

05/07/2013    *SAT-based Argumentation Systems*. Advanced Course on AI (ACAI) 2013, student session.

02/04/2012    *Knowledge Base Change and Abstract Dialectical Frameworks*. Dynamics of Argumentation, Rules and Conditionals (DARC) workshop

28/09/2011    *Making Use of Advances in Answer-Set Programming for Abstract Argumentation Systems*. INAP'11

23/08/2010    *A hybrid approach for model-based random testing*. VALID'10

## Awards and grants

- Project funding (PI): *Extending Belief Change to Advance Dynamics in Argumentation*. Funded by Austrian Science Fund (FWF) under grant P30168-N31.
- IJCAI 2019 Distinguished Program Committee member
- Runner-Up Best Student Paper Award at ECAI 2016

- Honorable mention from International Competition on Computational Models of Argumentation (ICCA) 2015 for participating solver *cegartix*
- ECCAI Travel Award for attending ACAI 2013
- Grant for attending doctoral consortium at KR 2012
- Distinguished student paper prize for "Complexity-Sensitive Decision Procedures for Abstract Argumentation" at KR 2012

## Teaching

Winter 2019	Course "Abstract Argumentation" at TU Vienna
Winter 2018	Course "Abstract Argumentation" at TU Vienna
Winter 2017	Course "Abstract Argumentation" at TU Vienna
Period i-ii 2016	"Seminar on Computational Social Choice" at University of Helsinki
Period i 2016	Course "Scientific Writing for MSc in Computer Science" at University of Helsinki
Period i-ii 2015	"Seminar on Tractability" at University of Helsinki
Period iv 2015	Guest lecture for "Satisfiability, Boolean Modeling and Computation" at University of Helsinki
Winter 2014	Course "Abstract Argumentation" at TU Vienna
Winter 2012	Course "Abstract Argumentation" at TU Vienna

## Co-supervised master's theses

- Tuomo Lehtonen, *Reasoning over Assumption-Based Argumentation Frameworks via Answer Set Programming*, University of Helsinki, 2019 (2nd instructor)
- Andreas Niskanen, *Enforcement in Abstract Argumentation via Boolean Optimization*, University of Helsinki, 2016 (2nd instructor)
- Martin Diller, *Solving Reasoning Problems on Abstract Dialectical Frameworks via Quantified Boolean Formulas*, TU Vienna, 2014
- Stefan Ellmauthaler, *Abstract Dialectical Frameworks: Properties, Complexity, and Implementation*, TU Vienna, 2012

## Languages

- German
- English

## Publications

**Publication summary** Wallner’s publication record includes 33 peer-reviewed publications in proceedings of conferences (among these six papers in **IJCAI**, six papers in **KR**, and four papers in **AAAI**), thirteen publications in international journals (e.g. four in **Artificial Intelligence** and two in the **Journal of Artificial Intelligence Research**), three contributions to books (e.g. in the **Handbook of Formal Argumentation**), and five publications in peer-reviewed proceedings of workshops. Topic-wise, Wallner published on diverse fields in, or related to, knowledge representation and reasoning within AI: formal argumentation, belief change, inconsistency measures, computational social choice, satisfiability solving, answer set programming, and abduction, and has worked on algorithms, computational complexity, formal foundations, and implementations for formal models in KR. Google scholar citation metrics for Wallner’s profile shows 934 citations, an h-index of 15, and an i10-index of 24 (as of May 20, 2020).

Online profiles are available at:

- Google Scholar  
<https://scholar.google.at/citations?user=MNjnPt4AAAAJ&hl=en>
- DBLP  
[http://dblp.uni-trier.de/pers/hd/w/Wallner:Johannes\\_Peter](http://dblp.uni-trier.de/pers/hd/w/Wallner:Johannes_Peter)

## Journals

*Author ordering in the following list is alphabetical, except for [j12, j7].*

- [j13] Johannes P. Wallner. Structural Constraints for Dynamic Operators in Abstract Argumentation *Argument & Computation*, 11(1-2):151–190, 2020.
- [j12] Andreas Niskanen, Johannes P. Wallner, and Matti Järvisalo. Synthesizing Argumentation Frameworks from Examples. *Journal of Artificial Intelligence Research*, 66:503–554, 2019.
- [j11] Matthias Thimm and Johannes P. Wallner. On the complexity of inconsistency measurement. *Artificial Intelligence*, 275:411–456, 2019.
- [j10] Rémi Brochenin, Thomas Linsbichler, Marco Maratea, Johannes P. Wallner, and Stefan Woltran. Abstract Solvers for Dung’s Argumentation Frameworks. *Argument & Computation*, 9(1):41–72, 2018.
- [j9] Federico Cerutti, Sarah A. Gaggl, Matthias Thimm, and Johannes P. Wallner. Foundations of implementations for formal argumentation. *IfCoLog Journal of Logics and their Applications*, 4(8):2623–2705, 2017.
- [j8] Gerhard Brewka, Stefan Ellmauthaler, Hannes Strass, Johannes P. Wallner, and Stefan Woltran. Abstract dialectical frameworks. An overview. *IfCoLog Journal of Logics and their Applications*, 4(8):2263–2317, 2017.

- [j7] Johannes P. Wallner, Andreas Niskanen, and Matti Järvisalo. Complexity Results and Algorithms for Extension Enforcement in Abstract Argumentation. *Journal of Artificial Intelligence Research*, 60:1–40, 2017.
- [j6] Günther Charwat, Wolfgang Dvořák, Sarah A. Gaggl, Johannes P. Wallner, and Stefan Woltran. Methods for solving reasoning problems in abstract argumentation - a survey. *Artificial Intelligence*, 220:28–63, 2015.
- [j5] Martin Diller, Johannes P. Wallner, and Stefan Woltran. Reasoning in abstract dialectical frameworks using quantified Boolean formulas. *Argument & Computation*, 6(2):149–177, 2015.
- [j4] Sarah A. Gaggl, Norbert Manthey, Alessandro Ronca, Johannes P. Wallner, and Stefan Woltran. Improved answer-set programming encodings for abstract argumentation. *Theory and Practice of Logic Programming*, 15(4–5):434–448, 7 2015.
- [j3] Hannes Strass and Johannes P. Wallner. Analyzing the Computational Complexity of Abstract Dialectical Frameworks via Approximation Fixpoint Theory. *Artificial Intelligence*, 226:34–74, 2015.
- [j2] Wolfgang Dvořák, Matti Järvisalo, Johannes P. Wallner, and Stefan Woltran. Complexity-sensitive decision procedures for abstract argumentation. *Artificial Intelligence*, 206:53–78, 2014.
- [j1] Axel Polleres and Johannes P. Wallner. On the relation between SPARQL1.1 and answer set programming. *Journal of Applied Non-Classical Logics*, 23(1–2):159–212, 2013.

## **Publications in conference proceedings (peer reviewed)**

*Author ordering in the following list is alphabetical, except*

*for [c31, c26, c25, c20, c19, c18, c17, c16, c14].*

- [c33] Wolfgang Dvořák, Johannes P. Wallner. Computing Strongly Admissible Sets. In Henry Prakken, Stefano Bistarelli, Francesco Santini, and Carlo Taticchi, editors, *Proceedings of the Eighth International Conference on Computational Models of Argument, COMMA 2020*, volume 326 of *Frontiers in Artificial Intelligence and Applications* pages 179–190, 2020. IOS Press.
- [c32] Wolfgang Dvořák, Sarah A. Gaggl, Anna Rapberger, Johannes P. Wallner, and Stefan Woltran. The ASPARTIX system suite. In Henry Prakken, Stefano Bistarelli, Francesco Santini, and Carlo Taticchi, editors, *Proceedings of the Eighth International Conference on Computational Models of Argument, COMMA 2020*, volume 326 of *Frontiers in Artificial Intelligence and Applications* pages 461–462, 2020. IOS Press.
- [c31] Tuomo Lehtonen, Johannes P. Wallner, and Matti Järvisalo. An Answer Set Programming Approach to Argumentative Reasoning in the ASPIC<sup>+</sup> Framework. Accepted to KR 2020.

- [c30] Zeynep G. Saribatur, Johannes P. Wallner, and Stefan Woltran. Explaining Non-Acceptability in Abstract Argumentation. In Giuseppe De Giacomo, Alejandro Catala, Bistra Dilkina, Michela Milano, Senén Barro, Alberto Bugarín, Jérôme Lang, editors, *Proceedings of the 24th European Conference on Artificial Intelligence, ECAI 2020*, volume 325 of *Frontiers in Artificial Intelligence and Applications* pages 881–888, 2020. IOS Press.
- [c29] Dvořák, Anna Rapberger, Johannes P. Wallner, and Stefan Woltran. ASPARTIX-V19 - An Answer-set Programming based System for Abstract Argumentation. In Andreas Herzig and Juha Kontinen, editors, *Proceedings of the Eleventh International Symposium on Foundations of Information and Knowledge Systems, FoIKS 2020*, volume 12012 of *Lecture Notes in Computer Science* pages 79–89, Dortmund, Germany, February 2020. Springer.
- [c28] Adrian Haret, Martin Lackner, Andreas Pfandler, and Johannes P. Wallner. Proportional Belief Merging. In *Proceedings of the 34th AAAI Conference on Artificial Intelligence, AAAI 2020*, pages 2822–2829, New York, USA, February 2020. AAAI Press.
- [c27] Adrian Haret and Johannes P. Wallner. Manipulating Skeptical and Credulous Consequences when Merging Beliefs. In Francesco Calimeri, Nicola Leone, and Marco Manna, editors, *Proceedings of the 16th European Conference on Logics in Artificial Intelligence, JELIA 2019*, volume 11468 of *Lecture Notes in Computer Science*, pages 133–150, Rende, Italy, May 2019. Springer.
- [c26] Tuomo Lehtonen, Johannes P. Wallner, and Matti Järvisalo. Reasoning over Assumption-Based Argumentation Frameworks via Direct Answer Set Programming Encodings. In Pascal Van Hentenryck and Zhi-Hua Zhou, editors, *Proceedings of the 33rd AAAI Conference on Artificial Intelligence, AAAI 2019*, pages 2938–2945, Honolulu, Hawaii, USA, January 2019. AAAI Press.
- [c25] Andreas Niskanen, Johannes P. Wallner, and Matti Järvisalo. Extension Enforcement under Grounded Semantics in Abstract Argumentation. In Michael Thielscher, Francesca Toni, and Frank Wolter, editors, *Proceedings of the 16th International Conference on Principles of Knowledge Representation and Reasoning, KR 2018*, pages 178–183, Tempe, USA, October 2018. AAAI Press.
- [c24] Johannes P. Wallner. Structural Constraints for Dynamic Operators in Abstract Argumentation. In Sanjay Modgil, Katarzyna Budzynska, and John Lawrence, editors, *Proceedings of the Seventh International Conference on Computational Models of Argument, COMMA 2018*, volume 305 of *Frontiers in Artificial Intelligence and Applications*, pages 73–84, Warsaw, Poland, September 2018. IOS Press.
- [c23] Thomas Linsbichler, Andreas Niskanen, Marco Maratea, Johannes P. Wallner, and Stefan Woltran. Novel Algorithms for Abstract Dialectical Frameworks based on Complexity Analysis of Subclasses and SAT Solving. In Jérôme Lang, editor, *Proceedings of the 27th International Joint Conference on Artificial Intelligence, IJCAI 2018*, pages 1905–1911, Stockholm, Sweden, July 2018. IJCAI.



- [c22] Adrian Haret, Johannes P. Wallner, and Stefan Woltran. Two Sides of the Same Coin: Belief Revision and Enforcing Arguments. In Jérôme Lang, editor, *Proceedings of the 27th International Joint Conference on Artificial Intelligence, IJCAI 2018*, pages 1854–1860, Stockholm, Sweden, July 2018. IJCAI.
- [c21] Gerhard Brewka, Hannes Strass, Johannes P. Wallner, and Stefan Woltran. Weighted Abstract Dialectical Frameworks. In Sheila A. McIlraith and Kilian Q. Weinberger, editors, *Proceedings of the 32nd AAAI Conference on Artificial Intelligence, AAAI 2018*, pages 1779–1786, New Orleans, Louisiana, USA, February 2018. AAAI Press.
- [c20] Tuomo Lehtonen, Johannes P. Wallner, and Matti Järvisalo. From Structured to Abstract Argumentation: Assumption-Based Acceptance via AF Reasoning. In Alessandro Antonucci, Laurence Cholvy and Odile Papini, editors, *Proceedings of the 14th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty, ECSQARU 2017*, volume 10369 of *Lecture Notes in Artificial Intelligence*, pages 57–68, Lugano, Switzerland, July 2017. Springer.
- [c19] Andreas Niskanen, Johannes P. Wallner, and Matti Järvisalo. Pakota: A System for Enforcement in Abstract Argumentation. In Loizos Michael and Antonis C. Kakas, editors, *Proceedings of the 15th European Conference on Logics in Artificial Intelligence, JELIA 2016*, volume 10021 of *Lecture Notes in Artificial Intelligence*, pages 385–400, Larnaca, Cyprus, November 2016. Springer.
- [c18] Andreas Niskanen, Johannes P. Wallner, and Matti Järvisalo. Synthesizing Argumentation Frameworks from Examples. In Gal A. Kaminka, Maria Fox, Paolo Bouquet, Eyke Hüllermeier, Virginia Dignum, Frank Dignum, and Frank van Harmelen, editors, *Proceedings of the Twenty-Second European Conference on Artificial Intelligence, ECAI 2016*, pages 551–559, The Hague, The Netherlands, August 2016. IOS Press.
- [c17] Andreas Niskanen, Johannes P. Wallner, and Matti Järvisalo. Optimal status enforcement in abstract argumentation. In Subbarao Kambhampati, editor, *Proceedings of the Twenty-Fifth International Joint Conference on Artificial Intelligence, IJCAI 2016*, pages 1216–1222, New York, USA, July 2016. AAAI Press / International Joint Conferences on Artificial Intelligence.
- [c16] Paul Saikko, Johannes P. Wallner, and Matti Järvisalo. Implicit hitting set algorithms for reasoning beyond NP. In Chitta Baral, Jim P. Delgrande and Frank Wolter, editors, *Proceedings of the Fifteenth International Conference on Principles of Knowledge Representation and Reasoning, KR 2016*, pages 104–113, Cape Town, South Africa, April 2016. AAAI Press.
- [c15] Matthias Thimm and Johannes P. Wallner. Some complexity results on inconsistency measurement. In Chitta Baral, Jim P. Delgrande and Frank Wolter, editors, *Proceedings of the Fifteenth International Conference on Principles of Knowledge Representation and Reasoning, KR 2016*, pages 114–124, Cape Town, South Africa, April 2016. AAAI Press.

- [c14] Johannes P. Wallner, Andreas Niskanen, and Matti Järvisalo. Complexity results and algorithms for extension enforcement in abstract argumentation. In Dale Schuurmans and Michael P. Wellman, editors, *Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence, AAAI 2016*, pages 1088–1094, Phoenix, Arizona, USA, February 2016. AAAI Press.
- [c13] Wolfgang Dvořák, Matti Järvisalo, Johannes P. Wallner, and Stefan Woltran. Complexity-sensitive decision procedures for abstract argumentation (extended abstract). In Qiang Yang and Michael Wooldridge, editors, *Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2015*, pages 4173–4177, Buenos Aires, Argentina, July 2015. AAAI Press / International Joint Conferences on Artificial Intelligence.
- [c12] Andreas Pfandler, Stefan Rümmele, Johannes P. Wallner, and Stefan Woltran. On the parameterized complexity of belief revision. In Qiang Yang and Michael Wooldridge, editors, *Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2015*, pages 3149–3155, Buenos Aires, Argentina, July 2015. AAAI Press / International Joint Conferences on Artificial Intelligence.
- [c11] Martin Diller, Johannes P. Wallner, and Stefan Woltran. Reasoning in abstract dialectical frameworks using quantified Boolean formulas. In Simon Parsons, Nir Oren, Chris Reed, and Federico Cerutti, editors, *Proceedings of the Fifth International Conference on Computational Models of Argument, COMMA 2014*, volume 266 of *Frontiers in Artificial Intelligence and Applications*, pages 241–252, Pitlochry, Scotland, September 2014. IOS Press.
- [c10] Hannes Strass and Johannes P. Wallner. Analyzing the computational complexity of abstract dialectical frameworks via approximation fixpoint theory. In Chitta Baral, Giuseppe De Giacomo, and Thomas Eiter, editors, *Proceedings of the 14th International Conference on Principles of Knowledge Representation and Reasoning, KR 2014*, pages 101–110, Vienna, Austria, July 2014. AAAI Press.
- [c9] Mario Alviano, Francesco Calimeri, Günther Charwat, Minh Dao-Tran, Carmine Dodaro, Giovambattista Ianni, Thomas Krennwallner, Martin Kronegger, Johannes Oetsch, Andreas Pfandler, Jörg Pührer, Christoph Redl, Francesco Ricca, Patrik Schneider, Martin Schwengerer, Lara K. Spendier, Johannes P. Wallner, and Guohui Xiao. The fourth answer set programming competition: Preliminary report. In Pedro Cabalar and Tran Cao Son, editors, *Proceedings of the Twelfth International Conference on Logic Programming and Nonmonotonic Reasoning, LPNMR 2013*, volume 8148 of *Lecture Notes in Artificial Intelligence*, pages 42–53, Corunna, Spain, September 2013. Springer.
- [c8] Thomas Ambroz, Günther Charwat, Andreas Jusits, Johannes P. Wallner, and Stefan Woltran. ARVis: Visualizing relations between answer sets. In Pedro Cabalar and Tran Cao Son, editors, *Proceedings of the Twelfth International Conference on Logic Programming and Nonmonotonic Reasoning, LPNMR 2013*, volume 8148 of *Lecture Notes in Artificial Intelligence*, pages 73–78, Corunna, Spain, September 2013. Springer.

- [c7] Günther Charwat, Giovambattista Ianni, Thomas Krennwallner, Martin Kronegger, Andreas Pfandler, Christoph Redl, Martin Schwengerer, Lara K. Spindler, Johannes P. Wallner, and Guohui Xiao. VCWC: A versioning competition workflow compiler. In Pedro Cabalar and Tran Cao Son, editors, *Proceedings of the Twelfth International Conference on Logic Programming and Nonmonotonic Reasoning, LPNMR 2013*, volume 8148 of *Lecture Notes in Artificial Intelligence*, pages 233–238, Corunna, Spain, September 2013. Springer.
- [c6] Gerhard Brewka, Stefan Ellmauthaler, Hannes Strass, Johannes P. Wallner, and Stefan Woltran. Abstract dialectical frameworks revisited. In Francesca Rossi, editor, *Proceedings of the 23rd International Joint Conference on Artificial Intelligence, IJCAI 2013*, pages 803–809, Beijing, China, August 2013. AAAI Press / IJCAI.
- [c5] Wolfgang Dvořák, Sarah A. Gaggl, Johannes P. Wallner, and Stefan Woltran. Making use of advances in answer-set programming for abstract argumentation systems. In Hans Tompits, Salvador Abreu, Johannes Oetsch, Jörg Pührer, Dietmar Seipel, Masanobu Umeda, and Armin Wolf, editors, *Proceedings of the 19th International Conference on Applications of Declarative Programming and Knowledge Management, INAP 2011, Revised Selected Papers*, volume 7773 of *Lecture Notes in Artificial Intelligence*, pages 114–133. Springer, 2013.
- [c4] Stefan Ellmauthaler and Johannes P. Wallner. Evaluating abstract dialectical frameworks with ASP. In Bart Verheij, Stefan Szeider, and Stefan Woltran, editors, *Proceedings of the Fourth International Conference on Computational Models of Argument, COMMA 2012*, volume 245 of *Frontiers in Artificial Intelligence and Applications*, pages 505–506, Vienna, Austria, September 2012. IOS Press.
- [c3] Wolfgang Dvořák, Matti Järvisalo, Johannes P. Wallner, and Stefan Woltran. Complexity-sensitive decision procedures for abstract argumentation. In Gerhard Brewka, Thomas Eiter, and Sheila A. McIlraith, editors, *Proceedings of the 13th International Conference on Principles of Knowledge Representation and Reasoning, KR 2012*, pages 54–64, Rome, Italy, June 2012. AAAI Press.
- [c2] Wolfgang Dvořák, Sarah A. Gaggl, Johannes P. Wallner, and Stefan Woltran. Making use of advances in answer-set programming for abstract argumentation systems. In Salvador Abreu, Johannes Oetsch, Jörg Pührer, Dietmar Seipel, Hans Tompits, Masanobu Umeda, and Armin Wolf, editors, *Proceedings of the 19th International Conference on Applications of Declarative Programming and Knowledge Management, INAP 2011*, pages 117–130, Vienna, Austria, September 2011.
- [c1] Stefan Mohacsi and Johannes Wallner. A hybrid approach for model-based random testing. In Lydie du Bousquet, Juho Perälä, and Pascal Lorenz, editors, *Proceedings of the Second International Conference on Advances in System Testing and Validation Lifecycle, VALID 2010*, pages 10–15, Nice, France, August 2010. IEEE.

## Contributions in books

- [b3] Federico Cerutti, Sarah A. Gaggl, Matthias Thimm, and Johannes P. Wallner. Foundations of Implementations for Formal Argumentation. In Pietro Baroni, Dov Gabbay, Massimiliano Giacomin, and Leon van der Torre, editors, *Handbook of Formal Argumentation*, chapter 14, pages 688-767. College Publications, 2018.
- [b2] Gerhard Brewka, Stefan Ellmauthaler, Hannes Strass, Johannes P. Wallner, and Stefan Woltran. Abstract Dialectical Frameworks. In Pietro Baroni, Dov Gabbay, Massimiliano Giacomin, and Leon van der Torre, editors, *Handbook of Formal Argumentation*, chapter 5, pages 237–285. College Publications, 2018.
- [b1] Wolfgang Dvořák, Sarah A. Gaggl, Thomas Linsbichler, and Johannes P. Wallner. Reduction-based Approaches to Implement Modgil’s Extended Argumentation Frameworks. In Thomas Eiter, Hannes Strass, Mirosław Truszczyński, and Stefan Woltran, editors, *Advances in Knowledge Representation, Logic Programming, and Abstract Argumentation. Essays Dedicated to Gerhard Brewka on the Occasion of His 60th Birthday*, volume 9060 of *Lecture Notes in Artificial Intelligence*, pages 249–264. Springer, 2015.

## Publications in proceedings of workshops (peer-reviewed)

- [w6] Wolfgang Dvořák, Anna Rapberger, and Johannes P. Wallner. Labelling-based Algorithms for SETAFs. In Sarah A. Gaggl, Matthias Thimm, and Mauro Vallati, editors, *Proceedings of the Third International Workshop on Systems and Algorithms for Formal Argumentation, SAFA 2020*, volume 2672 of *CEUR Workshop Proceedings* pages 34–46, 2020. CEUR-WS.org.
- [w5] Adrian Haret and Johannes P. Wallner. Manipulation of Semantic Aggregation Procedures for Propositional Knowledge Bases and Argumentation Frameworks. In Eduardo Fermé and Serena Villata, editors, *Proceedings of the 17th International Workshop on Non-otonic Reasoning, NMR 2018*, pages 146–155, Tempe, USA, October 2018.
- [w4] Rémi Brochenin, Thomas Linsbichler, Marco Maratea, Johannes P. Wallner, and Stefan Woltran. Abstract solvers for Dung’s argumentation frameworks. In Elizabeth Black, Sanjay Modgil, and Nir Oren, editors, *Proceedings of the Third Workshop on Theory and Applications of Formal Argumentation, TAFA 2015, Revised Selected Papers*, volume 9524 of *Lecture Notes in Artificial Intelligence*, pages 40–58, Buenos Aires, Argentina, July 2015. Springer.
- [w3] Sylwia Polberg, Johannes P. Wallner, and Stefan Woltran. Admissibility in the abstract dialectical framework. In João Leite, Tran Cao Son, Paolo Torroni, Leon van der Torre, and Stefan Woltran, editors, *Proceedings of the 14th International Workshop on Computational Logic in Multi-Agent Systems, CLIMA 2013*, volume 8143 of *Lecture Notes in Artificial Intelligence*, pages 102–118, Corunna, Spain, September 2013. Springer.

- [w2] Johannes P. Wallner, Georg Weissenbacher, and Stefan Woltran. Advanced SAT techniques for abstract argumentation. In João Leite, Tran Cao Son, Paolo Torroni, Leon van der Torre, and Stefan Woltran, editors, *Proceedings of the 14th International Workshop on Computational Logic in Multi-Agent Systems, CLIMA 2013*, volume 8143 of *Lecture Notes in Artificial Intelligence*, pages 138–154, Corunna, Spain, September 2013. Springer.
- [w1] Günther Charwat, Johannes P. Wallner, and Stefan Woltran. Utilizing ASP for generating and visualizing argumentation frameworks. In Michael Fink and Yuliya Lierler, editors, *Proceedings of the Fifth Workshop on Answer Set Programming and Other Computing Paradigms, ASPOCP 2012*, pages 51–65, Budapest, Hungary, September 2012.

## Thesis

- [a1] Johannes P. Wallner. *Complexity Results and Algorithms for Argumentation - Dung's Frameworks and Beyond*. PhD thesis, TU Vienna, Institute of Information Systems, 2014.

## Technical reports

- [t7] Adrian Haret and Johannes P. Wallner. Manipulating Skeptical and Credulous Consequences when Merging Beliefs. Technical Report DBAI-TR-2019-114, Technische Universität Wien, 2019.
- [t6] Sylwia Polberg and Johannes P. Wallner. Preliminary Report on Complexity Analysis of Extension-Based Semantics of Abstract Dialectical Frameworks. Technical Report DBAI-TR-2017-103, Technische Universität Wien, 2017.
- [t5] Sarah A. Gaggl, Norbert Manthey, Alessandro Ronca, Johannes P. Wallner, and Stefan Woltran. Improved Answer-Set Programming Encodings for Abstract Argumentation. Technical Report DBAI-TR-2015-93, Technische Universität Wien, 2015.
- [t4] Günther Charwat, Wolfgang Dvořák, Sarah A. Gaggl, Johannes P. Wallner, and Stefan Woltran. Implementing Abstract Argumentation - A Survey. Technical Report DBAI-TR-2013-82, Technische Universität Wien, 2013.
- [t3] Axel Polleres and Johannes P. Wallner. On the relation between SPARQL1.1 and Answer Set Programming. Technical Report DBAI-TR-2013-84, Technische Universität Wien, 2013.
- [t2] Hannes Strass and Johannes P. Wallner. Analyzing the Computational Complexity of Abstract Dialectical Frameworks via Approximation Fixpoint Theory. Technical Report 2, Computer Science Institute, Leipzig University, 2013.
- [t1] Wolfgang Dvořák, Sarah A. Gaggl, Johannes P. Wallner, and Stefan Woltran. Making Use of Advances in Answer-Set Programming for Abstract Argumentation Systems. Technical Report DBAI-TR-2011-70, Technische Universität Wien, 2011.

## Miscellaneous further contributions

[m2] Martin Diller, Wolfgang Dvořák, Jörg Pührer, Johannes P. Wallner, and Stefan Woltran. Presented at the Second Workshop on Trends and Applications of Answer Set Programming (TAASP 2018) <http://www.dbai.tuwien.ac.at/research/project/embarc/files/taasp2018-DillerDPWW.pdf>, 2019.

[m1] Wolfgang Dvořák, Matti Järvisalo, Johannes P. Wallner, and Stefan Woltran. CEGARTIX: A SAT-Based Argumentation System. Presented at the Pragmatics of SAT Workshop (PoS 2012) <http://www.dbai.tuwien.ac.at/research/project/argumentation/papers/DvorakJWW2012PoS.pdf>, 2012.

Last updated: October 13, 2020