

Dr. Sarah Alice Gaggl – CV

Adresse Institut für Künstliche Intelligenz
Logische Programmierung und Argumentation
Technische Universität Dresden
Nöthnitzerstraße 46
01069 Dresden
Deutschland

Geburtsdatum 22. Februar 1980

Staatsangehörigkeit Österreich

Telefon +49-(0)351-463-38679

Email sarah.gaggl@tu-dresden.de

Elternzeiten: Vollzeit Okt. 2017 – Dez. 2018;
Teilzeit (75 % Vertrag) März 2019 – Juni 2019



Forschungsschwerpunkte

- **Wissensrepräsentation**
- **Answer Set Programming**
- **Argumentation Theory**

Akademische Ausbildung und Abschlüsse

- 05/2022** *TUD Young Investigator*
- 2015–2016** Sächsisches Hochschuldidaktik Zertifikat, Module 1 und 2.
- 2009–2013** Doktorat der Informatik an der Technischen Universität Wien; Promotion zur Doktorin der *Technischen Wissenschaften* (Dr.techn.) mit Auszeichnung.
Dissertation: *A Comprehensive Analysis of the cf2 Argumentation Semantics: From Characterization to Implementation*;
Doktorvater: Prof.Dr. Woltran
- 08/2010** 22nd European Summer School in Logic, Language and Information (ESSLLI 2010), Dänemark, Kopenhagen, August 9-20, 2010.
- 08/2009** Advanced Course in Artificial Intelligence (ACAI 2009), GB, Belfast, August 23-29, 2009.
- 07/2009** 21st European Summer School in Logic, Language and Information (ESSLLI 2009), Frankreich, Bordeaux, Juli 20-31, 2009.
- 2001–2009** Studium der Informatik an der Technischen Universität Wien;
Abschluss als Bachelor of Science (BSc) in *Medizinische Informatik* und Abschluss als Diplomingenieurin (Dipl.Ing.) im Masterstudiengang *Computational Intelligence* mit Auszeichnung.
Masterarbeit: *Solving Argumentation Frameworks using Answer Set Programming*;
Betreuer: Ao.Univ.Prof.Dr. Uwe Egly.

Akademische Arbeitserfahrung

- 10/2020-Heute** Technische Universität Dresden
Nachwuchsgruppenleiterin
- Logische Programmierung und Argumentation am Institut für Künstliche Intelligenz.*
Projekt: *NAVAS Navigation im Lösungsraum von Answer Sets*;
Projektleiterin: Dr. Sarah Alice Gaggl.
Gefördert durch das BMBF Förderkennzeichen 01IS20056NAVAS.

- 01/2019-
Heute** Technische Universität Dresden
Principal Investigator
Sonderforschungsbereich 248 Grundlagen verständlicher Softwaresysteme (Center for Perspicuous Computing, (CPEC)); DFG TRR 248
- 04/2013 -
09/2020** Technische Universität Dresden
Wissenschaftliche Mitarbeiterin
Computational Logic Gruppe des Instituts für Künstliche Intelligenz
- 04/2009 -
09/2012** Technische Universität Wien
Projektassistentin
Database and Artificial Intelligence Gruppe des Instituts für Informationssysteme.
Projekt: *New Methods for Analyzing, Comparing, and Solving Argumentation Problems*;
Projektleiter: Prof. Dr. Stefan Woltran.
Gefördert durch den WWTF ICT 08-028.

Professionelle Tätigkeiten

- Co-Program Chair und Co-Organisatorin des 4. Internationalen Workshops on Systems and Algorithms for Formal Argumentation (SAFA 2022)
 - Ständiger Gast im Beirat des Schaufler Lab@TU Dresden (2021-2023)
 - Associate Editor für Frontiers in Computer Science (Theoretical Computer Science) (seit März 2021)
 - Mitglied im Editorial Board des Argument & Computation Journals (seit Dez. 2020)
 - Co-Program Chair und Co-Organisatorin des 3. Internationalen Workshops on Systems and Algorithms for Formal Argumentation (SAFA 2020)
 - Präsidentin des ICCMA Steering Committees (seit Okt. 2019)
 - Mitglied des ICCMA Steering Committees (seit 2015)
 - Co-Organisatorin der 2. Internationalen Competition on Computational Models of Argumentation (IC-CMA 2017)
 - Gasteditorin des Special Issue on Argumentation and Logic Programming of Fundamenta Informaticae (2017)
 - Co-Program Chair und Co-Organisatorin des 1. Internationalen Workshop on Argumentation in Logic Programming and Non-Monotonic Reasoning (Arg-LPNMR 2016)
 - Co-Chair der 2. Summer School on Argumentation: Computational and Linguistic Perspectives (SSA 2016)
 - Co-Program Chair und Co-Organisatorin des 1. Internationalen Workshop on Argumentation and Logic Programming (ArgLP 2015)
- **Mitgliedschaften in Programmkomitee**

- 2023: AAAI 2023
 - 2022: AAMAS 2022, KR 2022, ICLP 2022, LPNMR 2022, COMMA 2022, ASPOCP 2022, SAFA 2022, XLoKR 2022, DeclarativeAI-22, JOWO 2022
 - 2021: JELIA 2021, ICLP 2021, ArgStrength2021, XLoKR 2020
 - 2020: AAAI-20, IJCAI-PRICAI 2020, ECAI 2020, COMMA 2020, SAFA 2020, ASPOCP 2020, XLoKR 2020,
 - 2019: LPNMR 2019
 - 2017: APPARG 2017 at (IEA/AIE 2017), KRR track of (EPIA 2017), ICLP 2107, IULP 2017, TAFE 2017
 - 2016: AAAI 2016, COMMA 2016, ICAART 2016, SAFA 2016, TAASP 2017
 - 2015: ICAART 2015, IJCAI 2015, ICLP 2015, IULP 2015
 - 2013: AAA 2013, CLIMA XIV,
- **Gutachtertätigkeit für Fachzeitschriften**
 Argument & Computation; International Journal of Advanced Research (IJAR); Artificial Intelligence Journal (AIJ); Information Processing Letters (IPL) Journal of Logic and Computation Special, Special Issue on Loops in Argumentation (JLCLoops13); Journal of Logic and Computation (JLC); Special Issue on 20 years of Argument-based Inference (JLCabi11);
 - **Weitere Gutachtertätigkeiten (ohne PC Mitgliedschaft)**
 Handbook on Formal Argumentation 2016, Essays Dedicated to Gerhard Brewka on the Occasion of His 60th Birthday (2015), TCCI 2015, TTL 2015, NMR 2014, ICLP 2013, ISWC2013, ECAI 2012, Reasoning Web Summer School 2012, ICAART 2012, AAAI 2011, LPNMR 2011, TAFE 2011, ECAI 2010, Tableaux 2011
 - **Gutachtertätigkeiten für Projektanträge**
 DFG - Deutsche Forschungsgemeinschaft; ÖAW - Austrian Academy of Sciences
 - **Eingeladene Vorträge und Präsentationen**

- *Scalable Understanding: Navigation Approaches for Answer Sets*. Artificial Intelligence Group (AIG) an der FernUniversität in Hagen (virtuel), 20. Oktober 2022.
 - *The NAVAS Project and NEXAS: A Visual Tool for Navigating and Exploring Argumentation Solution Spaces*. Workshop on Navigation Approaches for Answer Sets (NAVAS), Technische Universität Wien, Österreich, 23. Mai, 2022.
 - *Scalable Understanding: Navigation Approaches for Answer Sets*. TUD Young Investigator, Technische Universität Dresden, 5. April 2022.
 - Podiumsdiskussion: *Von denkenden Computern und mitfühlenden Robotern: Künstliche Intelligenz heute und morgen*, Technische Sammlungen Dresden, Evangelische Akademie Meissen, 04. Februar 2020.
 - *Closed Worlds*. Schwarzmarkt für nützliches Wissen und Nicht-Wissen zum Thema CAPTCHA! *Maschinen lernen Handeln von Menschen, die nicht verstehen was sie wissen*, (23/2019),
 - *ASPARTIX-D Ready for the Competition*. Argumentation Spring Meeting Universität Leipzig, April 2015.
 - *Computational Aspects of the stage2 Argumentation Semantics*. EPCL-Basic Training Camp. TU Dresden, 13. November, 2013.
 - *Incorporating the Stage Semantics in the SCC-recursive Schema for Argumentation Semantics*. London Argumentation Forum (LAF). King's College, London, 22. April, 2012.
 - *Making Use of Advances in Answer-Set Programming for Abstract Argumentation Systems*. Computational Logic and Knowledge Representation Workshop. UPS University, IRIT, Toulouse, Frankreich, 22.-23. Oktober, 2011.
 - *Strong Equivalence for Argumentation Semantics based on Conflict-free Sets*. Argumentation Christmas Meeting. Technische Universität Wien, Österreich, 7.-8. Dezember, 2010.
- **Forschungsaufenthalte**
 - Prof. Ken Satoh, National Institute of Informatics (NII), Tokyo, Japan, März 2011.
 - Gruppe von Prof. Gerd Brewka, Univ. Leipzig, Deutschland, Dezember 2009.
 - **Auszeichnungen**
 - Honorable mention (runnerup for best paper award) bei der 16. Internationalen Conference on Logic Programming and Non-monotonic Reasoning (LPNMR 2022) für den Artikel *IASCAR: Incremental Answer Set Counting by Anytime Refinement*, gemeinsame Arbeit mit Johannes Klaus Fichte, Markus Hecher und Dominik Rusovac, 2022.
 - Nominiert für den *Hannspeter Winter-Preis*, TU Wien, 2013.
 - *Best Student Paper Prize* beim 14. Internationalen Workshop on Non-Monotonic Reasoning (NMR 2012) für den Artikel *Incorporating Stage Semantics in the SCC-recursive Schema for Argumentation Semantics*, gemeinsame Arbeit mit Wolfgang Dvořák, 2012.
 - *Best Student Paper Award* bei der Internationalen Conference on Computational Models of Argument (COMMA 2010) für den Artikel *cf2 Semantics Revisited*, 2010.
 - **Metriken**

≥ 58 Publikationen, **h-index 17**, ≥ 1139 Zitate (Google Scholar, 10/2022)

Einwerbung von Drittmittelprojekten

- 2020–2024** Antragsstellerin BMBF KI-Nachwuchswissenschaftlerinnen,
"NAVAS Navigation im Lösungsraum von Answer Sets",
Fördersumme 1,2 Millionen Euro.
- 2019–2022** PI und Co-Antragsstellerin DFG SFB TRR 248,
"Grundlagen Verständlicher Softwaresysteme" (Center for Perspicuous Computing CPEC),
Fördersumme 11 Millionen Euro.

Projekterfahrung

NAVAS Navigation im Lösungsraum von Answer Sets

Technische Universität Dresden;

Projektleiterin.

Projektzeitraum: Oktober 2020 – September 2024.

Finanzierung: *BMBF – Bundesministerium für Bildung und Forschung*

Förderkennzeichen 01IS20056NAVAS.

CPEC Center for Perspicuous Computing

Technische Universität Dresden;

Principal Investigator; Sprecher: H. Hermanns.

Teilprojekte C2 und E3.

Projektzeitraum: Januar 2019 – Dezember 2022.

Finanzierung: *DFG – Deutsche Forschungsgemeinschaft*

DFG SFB TRR 248

(Projektnummer 389792660).

Solving Product Configuration Problems using Non-standard Reasoning Services

Technische Universität Dresden;

Kollaboratorin; Projektleitung: S. Rudolph.

Projektzeitraum: 2013-2016.

Finanzierung: Airbus Group.

Abstract Dialectical Frameworks: Advanced Tools for Formal Argumentation

Universität Leipzig / Technische Universität Wien;

Kollaboratorin; Projektleitung: G. Brewka und S. Woltran.

Projektzeitraum: Juni 2013–Dezember 2016.

Finanzierung: *DFG – Deutsche Forschungsgemeinschaft* und

FWF – Fonds zur Förderung der wissenschaftlichen Forschung

(Projekt Nummer I1102).

New Methods for Analyzing, Comparing, and Solving Argumentation Problems

Technische Universität Wien;

angestellt als Projektmitarbeiterin; Projektleitung: S. Woltran.

Projektzeitraum: April 2009–Oktober 2012.

Finanzierung: WWTF – Wiener Wissenschafts-, Forschungs- und Technologiefonds

(Projekt Nummer ICT 08-028).

Stipendien und Praktika

- COST Travel Grant für die Teilnahme am Doctoral Consortium der KR 2012.
- COST Travel Award für die Teilnahme am London Argumentation Forum (LAF) im April 2012.
- IJCAI Travel Grant für die Teilnahme an der IJCAI 2011.
- International Internship am National Institute of Informatics (NII), Tokyo, Japan, 2011.
- ECCAI Travel Award für die Teilnahme am ACAI 2009.

Lehrtätigkeit

International:

- Dozentin bei der ICCL Summer School in Dresden, Deutschland 2017
- Dozentin bei der ICCL Summer School in Rayong, Thailand 2016
- Dozentin bei der ICCL Summer School in Dresden, Deutschland 2015

TU Dresden:

- Foundations of Logic Programming, Wintersemester 2021.
- Seminar Selected Topics of Computational Logic (Master), Wintersemester 2019.
- Problem Solving and Search in Artificial Intelligence (Master), Sommersemester 2014–2017, Sommer- und Wintersemester 2019–2020.
- Seminar Abstract Argumentation (Master), Wintersemester 2013–2016.
- Übung für “Foundations of Logic Programming” (Master), Wintersemester 2013.
- Übung für “Foundations of Constraint Programming” (Master), Wintersemester 2013.
- Project Group Computational Logic (Master), 2014–2017, 2019.

TU Wien:

- Seminar “Logic Seminar” (Master), Sommersemester 2012.
- Übungen für “Einführung Wissensbasierte Systeme” (Bachelor), TU Wien, Sommersemester 2012.
- Übungen für “Einführung in die Künstliche Intelligenz” (Bachelor), TU Wien, Sommersemester 2012.
- Abstract Argumentation (Master), TU Wien, Wintersemester 2011.
- Tutorin für “Einführung Wissensbasierte Systeme” (Bachelor), TU Wien, Wintersemester 2008.
- Tutorin für “Logikorientierte Programmierung” (Bachelor), TU Wien, Sommersemester 2008.
- Tutorin für “Grundlagen der Informatik”, TU Wien, Sommersemester 2002–2008, Wintersemester 2005–2008.

■ PhD Studenten

- Elisa Böhl 2020-2024?, TBD
- Dominik Rusovac 2021-2024?, TBD

■ Betreute Masterarbeiten

- Automatic and Interactive Search in Flexible Dispute Derivations for Assumption-Based Argumentation, Piotr Jerzy Gorczyca, 2022.
- Analysis and Implementation of the SCF2 Argumentation Semantics, Guzel Khuziakhmetova, 2021.
- Visualizing the Extension Space of Abstract Argumentation Frameworks Using Clustering Methods, Mei Yang, 2021.
- Encoding Belief Revision Operators in Abstract Dialectical Frameworks, Umer Mushtaq, 2016
- On the Computation of Naive-based Argumentation Semantics, Javanshir Alammadli, 2016
- Navigation Approaches for Answer Sets, Asmaa Afeefi, 2015
- Co-supervised: Argumentation and Answer-Set Programming Modelling the Resolution-Based Grounded Semantics, Christian Weichselbaum, 2013.

■ **Betreute Projektarbeiten**

- Solving Angry Birds with Reinforcement Learning, Richard Kwasnicki and Julius Gonsior, 2017
- Visualization of Solutions in Abstract Argumentation Frameworks, Rajwardhan Kumar, 2016
- Intertranslatability of Labeling-Based Argumentation Semantics, Umer Mushtaq, 2015
- Implementing a Labeling-based Algorithm for the cf2 Argumentation Semantics, Javan-shir Alammadli, 2015
- Solving Product Configuration Problems using Non-standard Reasoning Services, Lukas Schweizer, 2014

Mitwirkung in der akademischen Selbstverwaltung

- Mitglied der Berufungskommission *Clinical Artificial Intelligence* (W3), Technische Universität Dresden, 2021
- Ersatzmitglied der Berufungskommission *Algorithmik* (W3), Technische Universität Dresden, 2021-2022
- Mitglied der Berufungskommission *Explainable Artificial Intelligence* (W3), Technische Universität Dresden, 2020-2021
- Mitglied der Berufungskommission *Intelligente Informationssysteme* (W3), Technische Universität Dresden, 2020-2021

Publikationen

Artikel in Fachzeitschriften

- [j11] Nikolai Käfer, Christel Baier, Martin Diller, Clemens Dubsloff, Sarah Alice Gaggl, Holger Hermanns. Admissibility in Probabilistic Argumentation. In *Journal of Artificial Intelligence Research* 74 (2022).
- [j10] Sarah Alice Gaggl, Sebastian Rudolph, Hannes Strass. On the Decomposition of Abstract Dialectical Frameworks and the Complexity of Naive-based Semantics. In *Journal of Artificial Intelligence Research*, 70: 1–64 (2021).
- [j9] Sarah Alice Gaggl, Thomas Linsbichler, Marco Maratea, Stefan Woltran. Design and results of the second international competition on computational models of argumentation. In *Artificial Intelligence Journal*, <https://doi.org/10.1016/j.artint.2019.103193>, November 2019.
- [j8] Sarah Alice Gaggl, Thomas Linsbichler, Marco Maratea, Stefan Woltran. Summary Report of the Second International Competition on Computational Models of Argumentation. In *AI Magazine*, 39(4):77–79, December 2018.
- [j7] Federico Cerutti, Sarah Alice Gaggl, Matthias Thimm, Johannes Peter Wallner. Foundations of Implementations for Formal Argumentation. In *The IfCoLog Journal of Logics and their Applications*; Special Issue *Formal Argumentation*, 4:2623–2705, September 2017.
- [j6] Sarah Alice Gaggl, Juan Carlos Nieves, Hannes Strass, Paolo Torroni. Preface: Argumentation and Logic Programming (Revised Selected Papers of ArgLP 2015). In *Fundamenta Informaticae*, 155(3): i-iii, 2017.
- [j5] Wolfgang Dvořák, Sarah Alice Gaggl. Stage semantics and the SCC-recursive schema for argumentation semantics. In *Journal of Logic and Computation (JLC)* in the special issue on *Loops in Argumentation*, 26(4):1149–1202, August 2016.
- [j4] Günther Charwat, Wolfgang Dvořák, Sarah Alice Gaggl, Johannes Peter Wallner, Stefan Woltran. Methods for Solving Reasoning Problems in Abstract Argumentation – A Survey. In *Artificial Intelligence Journal*, 220(0):28–63, March 2015.
- [j3] Sarah Alice Gaggl, Norbert Manthey, Alessandro Ronca, Johannes Peter Wallner, Stefan Woltran. Improved Answer-Set Programming Encodings for Abstract Argumentation. In *Theory and Practice of Logic Programming (TPLP)*, 15(4–5):434–448, September 2015.
- [j2] Sarah Alice Gaggl, Stefan Woltran. The cf2 Argumentation Semantics Revisited. In *Journal of Logic and Computation*, 23(5):925–949, 2013.
- [j1] Uwe Egly, Sarah Alice Gaggl, Stefan Woltran. Answer-Set Programming Encodings for Argumentation Frameworks. In *Argument and Computation*, 1(2): 147–177 (2010).

Artikel in Tagungsbänden

- [c30] Martin Diller, Sarah Alice Gaggl, Piotr Gorczyca. Strategies in Flexible Dispute Derivations for Assumption-Based Argumentation. In Sarah Alice Gaggl, Jean-Guy Mailly, Matthias Thimm, Johannes Peter Wallner, eds., *Proceedings of the 4th International Workshop on Systems and Algorithms for Formal Argumentation (SAFA 2022)*, volume 3236, 59-72, October 2022. CEUR-WS.
- [c29] Raimund Dachsel, Sarah Alice Gaggl, Markus Krötzsch, Julián Méndez, Dominik Rusovac, Mei Yang. NEXAS: A Visual Tool for Navigating and Exploring Argumentation Solution Spaces. In Francesca Toni, eds., *Proceedings of the 9th International Conference on Computational Models of Argument (COMMA 2022)*, volume 220146 of FAIA, 116-127, September 2022. IOS Press.
- [c28] Stefan Ellmauthaler, Sarah Alice Gaggl, Dominik Rusovac, Johannes Peter Wallner. ADF - BDD : An ADF Solver Based on Binary Decision Diagrams. In Francesca Toni, eds., *Proceedings of the 9th International Conference on Computational Models of Argument (COMMA 2022)*, volume 220146 of FAIA, 355-356, September 2022. IOS Press.
- [c27] Elisa Böhl, Sarah Alice Gaggl. Tunas - Fishing for Diverse Answer Sets: A Multi-Shot Trade up Strategy. In Georg Gottlob, Daniela Incezan, Marco Maratea, eds., *Proceedings of the 16th International Conference on Logic Programming and Non-monotonic Reasoning (LPNMR 2022)*, volume 13416 of Lecture Notes in Computer Science, 89-102, August 2022. Springer International Publishing.
- [c26] Johannes Klaus Fichte, Sarah Alice Gaggl, Markus Hecher, Dominik Rusovac. IASCAR: Incremental Answer Set Counting by Anytime Refinement. In Georg Gottlob, Daniela Incezan, Marco Maratea, eds., *Proceedings of the 16th International Conference on Logic Programming and Non-monotonic Reasoning (LPNMR 2022)*, volume 13416 of Lecture Notes in Computer Science, 217-230, August 2022. Springer International Publishing; honorable mention (runnerup for best paper award).
- [c25] Stefan Ellmauthaler, Sarah Alice Gaggl, Dominik Rusovac, Johannes Peter Wallner. Representing Abstract Dialectical Frameworks with Binary Decision Diagrams. In Georg Gottlob, Daniela Incezan, Marco Maratea, eds., *Proceedings of the 16th International Conference on Logic Programming and Non-monotonic Reasoning (LPNMR 2022)*, volume 13416 of Lecture Notes in Computer Science, 177-198, 2022. Springer International Publishing.
- [c24] Johannes Klaus Fichte, Sarah Alice Gaggl, Dominik Rusovac. Rushing and Strolling among Answer Sets – Navigation Made Easy (Extended Abstract). In *Technical Communication Proceeding of the 38th International Conference on Logic Programming (ICLP 2022)*, to appear.
- [c23] Sarah Alice Gaggl, Philipp Hanisch, Markus Krötzsch. Simulating Sets in Answer Set Programming. In Luc De Raedt, eds., *Proceedings of the 31st International Joint Conference on Artificial Intelligence and the 25th European Conference on Artificial Intelligence (IJCAI-ECAI 2022)*, 2634–2640, 2022. ijcai.org, 2022.
- [c22] Johannes Klaus Fichte, Sarah Alice Gaggl, Dominik Rusovac. Rushing and Strolling among Answer Sets - Navigation Made Easy. In *Proceedings of the 36th AAAI Conference on Artificial Intelligence (AAAI 2022)*, volume 36 of 5, 5651–5659, 2022.
- [c21] Martin Diller, Sarah Alice Gaggl, Piotr Gorczyca. Flexible Dispute Derivations with Forward and Backward Arguments for Assumption-Based Argumentation. In Pietro Baroni, Christoph Benzmüller, Yi N. Wáng, eds., *Proceedings of the 4th International Conference on Logic and Argumentation (CLAR 2021)*, volume 13040 of Lecture Notes in Computer Science, 147–168, Springer, 2021.
- [c20] Christel Baier, Martin Diller, Clemens Dubslaff, Sarah Alice Gaggl, Holger Hermanns, Nikolai Käfer. Admissibility in Probabilistic Argumentation. In Meghyn Bienvenu, Gerhard Lakemeyer, Esra Erdem, eds., *Proceedings of the 18th International Conference on Principles of Knowledge Representation and Reasoning (KR 2021)*, 87–98, 2021.
- [c19] Wolfgang Dvořák, Sarah Alice Gaggl, Anna Rapberger, Johannes Peter Wallner, Stefan Woltran. The ASPARTIX System Suite. In Henry Prakken, Stefano Bistarelli, Francesco Santini, Carlo Taticchi, eds., *Proceedings of the 8th International Conference on Computational Models of Argument (COMMA 2020)*, volume 326 of Frontiers in Artificial Intelligence and Applications, 461–462, 2020.
- [c18] Mei Yang, Sarah Alice Gaggl, Sebastian Rudolph. Neva – Extension Visualization for Argumentation Frameworks. In Henry Prakken, Stefano Bistarelli, Francesco Santini, Carlo Taticchi, eds., *Proceedings of the 8th International Conference on Computational Models of Argument (COMMA 2020)*, volume 326 of Frontiers in Artificial Intelligence and Applications, 477–478, 2020.

- [c17] Sarah Alice Gaggl, Sebastian Rudolph, Lukas Schweizer. Practical Fixed-Domain Reasoning for Description Logics - Extended Abstract. In Juan L. Reutter, Divesh Srivastava, eds., *Proceedings of the 11th Alberto Mendelzon International Workshop on Foundations of Data Management and the Web*, volume 1912 of CEUR Workshop Proceedings, CEUR-WS.org, 2017.
- [c16] Sarah Alice Gaggl, Sebastian Rudolph, Lukas Schweizer. Fixed-Domain Reasoning for Description Logics. In Maurizio Lenzerini, Rafael Peñaloza, eds., *Proceedings of the 29th International Workshop on Description Logics (DL'16)*, volume 1577, CEUR Workshop Proceedings, 2016.
- [c15] Sarah Alice Gaggl, Sebastian Rudolph, Lukas Schweizer. Fixed-Domain Reasoning for Description Logics. In Gal A. Kaminka, Maria Fox, Paolo Bouquet, Eyke Hüllermeier, Virginia Dignum, Frank Dignum, Frank van Harmelen, eds., *Proceedings of the 22nd European Conference on Artificial Intelligence (ECAI 2016)*, volume 285 of Frontiers in Artificial Intelligence and Applications, pages 819–827, IOS Press, 2016.
- [c14] Sarah Alice Gaggl, Umer Mushtaq. Intertranslatability of Labeling-based Argumentation Semantics. In Steven Schockaert, Pierre Senellart, eds., *Proceedings of the 10th International Conference on Scalable Uncertainty Management (SUM 2016)*, volume 9858 of Lecture Notes in Computer Science, pages 155–169, Springer, 2016.
- [c13] Sarah Alice Gaggl, Thomas Linsbichler, Marco Maratea, Stefan Woltran. Introducing the Second International Competition on Computational Models of Argumentation. In Matthias Thimm, Federico Cerutti, Hannes Strass, Mauro Vallati, eds., *Proceedings of the First International Workshop on Systems and Algorithms for Formal Argumentation (SAFA 2016)*, volume 1672, pages 4–9, CEUR-WS, 2016.
- [c12] Sarah Alice Gaggl, Sebastian Rudolph, Lukas Schweizer. Bound Your Models! How to Make OWL an ASP Modeling Language. In Stefan Ellmauthaler, Claudia Schulz, eds., *International Workshop on User-Oriented Logic Programming (IULP)*, November 2015.
- [c11] Sarah Alice Gaggl, Sebastian Rudolph, Hannes Strass. On the Computational Complexity of Naive-based Semantics for Abstract Dialectical Frameworks. In Qiang Yang and Michael Wooldridge, eds., *Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI 2015)*, AAAI Press, pages 2985–2991, AAAI Press, 2015.
- [c10] Sarah Alice Gaggl, Norbert Manthey, Alessandro Ronca, Johannes Peter Wallner, Stefan Woltran. Improved Answer-Set Programming Encodings for Abstract Argumentation. To appear in *Theory and Practice of Logic Programming (TPLP)*, *Proceedings of ICLP 2015*, August 2015. arXiv:1507.06689.
- [c9] Sarah Alice Gaggl, Hannes Strass. Decomposing Abstract Dialectical Frameworks. In Simon Parsons, Nir Oren, Chris Reed, Federico Cerutti, eds., *Proceedings of the 5th International Conference on Computational Models of Argument (COMMA 2014)*, volume 266 of Frontiers in Artificial Intelligence and Applications, 281–292, IOS Press, 2014.
- [c8] Wolfgang Dvořák, Sarah Alice Gaggl, Johannes Peter Wallner, 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, Armin Wolf, eds., *Proceedings of 19th International Conference on Applications of Declarative Programming and Knowledge Management (INAP 2011)*, Vienna, Austria, Revised Selected Papers, volume 7773 of Lecture Notes in Computer Science, pages 114–133, Springer, 2013.
- [c7] Wolfgang Dvořák, Sarah Alice Gaggl. Computational Aspects of cf2 and stage2 Argumentation Semantics. In Bart Verheij, Stefan Szeider, Stefan Woltran, eds., *Proceedings of the 4th International Conference on Computational Models of Argument (COMMA 2012)*, 2012, volume 245 of Frontiers in Artificial Intelligence and Applications, pages 273–284. IOS Press, 2012.
- [c6] Wolfgang Dvořák, Sarah Alice Gaggl. Incorporating Stage Semantics in the SCC-recursive Schema for Argumentation Semantics. In *Proceedings of the 14th International Workshop on Non-Monotonic Reasoning (NMR 2012)*, June 8–10, 2012.
- [c5] Sarah Alice Gaggl, Stefan Woltran. Strong Equivalence for Argumentation Semantics based on Conflict-free Sets. In Weiru Liu, eds., *Proceedings of 11th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU 2011)*, volume 6717 of Lecture Notes in Computer Science, pages 38–49, Springer, 2011.
- [c4] Sarah Alice Gaggl, Stefan Woltran. cf2 Semantics Revisited. In Pietro Baroni, Federico Cerutti, Massimiliano Giacomin, Guillermo Ricardo Simari, eds., *Proceedings of the Third International Conference on Computational Models of Argument (COMMA 2010)*, volume 216 of Frontiers in Artificial Intelligence and Applications, pages 243–254. IOS Press, 2010.

- [c3] Sarah Alice Gaggl. Towards a General Argumentation System based on Answer-Set Programming. In Manuel V. Hermenegildo, Torsten Schaub, eds., *Technical Communications of the 26th International Conference on Logic Programming (ICLP 2010)*, volume 7 of LIPIcs, 265–269, July 2010. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik.
- [c2] Uwe Egly, Sarah Alice Gaggl, Stefan Woltran. ASPARTIX: Implementing Argumentation Frameworks Using Answer-Set Programming. In Maria Garcia de la Banda, Enrico Pontelli, eds., *Proceedings of the 24th International Conference on Logic Programming (ICLP 2008)*, volume 5366 of Lecture Notes in Computer Science, 734–738, 2008. Springer.
- [c1] Uwe Egly, Sarah Alice Gaggl, Stefan Woltran. Answer-Set Programming Encodings for Argumentation Frameworks. In *1st Workshop on Answer Set Programming and other Computing Paradigms (ASPOCP 2008)*, Udine, Italy, 2008.

Buchkapitel

- [b4] Federico Cerutti, Sarah Alice Gaggl, Matthias Thimm, Johannes Peter Wallner. Foundations of Implementations for Formal Argumentation. In Pietro Baroni; Dov Gabbay; Massimiliano Giacomin; Leendert van der Torre, eds., *Handbook on Formal Argumentation*, chapter *Foundations of implementations for formal argumentation*, pages 688–767. College Publications, February 2018.
- [b3] Wolfgang Dvořák, Sarah Alice Gaggl, Thomas Linsbichler, Johannes Peter Wallner. Reduction-Based Approaches to Implement Modgil’s Extended Argumentation Frameworks. In Eiter, Thomas and Strass, Hannes and Truszczyński, Mirosław and Woltran, Stefan, eds., *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 Computer Science, chapter *Abstract Argumentation*, pages 249–264. Springer International Publishing, 2015.
- [b2] Sarah Alice Gaggl, Sebastian Rudolph, Michaël Thomazo. What Is a Reasonable Argumentation Semantics? In Eiter, Thomas and Strass, Hannes and Truszczyński, Mirosław and Woltran, Stefan, eds., *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 Computer Science, chapter *Abstract Argumentation*, pages 309–324. Springer International Publishing, 2015.
- [b1] Wolfgang Dvořák, Sarah Alice Gaggl, Stefan Szeider, Stefan Woltran. Benchmark libraries for argumentation. In Ossowski, Sascha, eds., *Agreement Technologies*, volume 8 of Law, Governance and Technology Series, chapter *The added value of argumentation*, pages 389–393. Springer, 2013.

Herausgegebene Tagungsbände

- [p4] Sarah Alice Gaggl, Jean-Guy Mailly, Matthias Thimm, Johannes Peter Wallner. Proceedings of the The Fourth International Workshop on Systems and Algorithms for Formal Argumentation (SAFA 2022). Volume 3236, October 2022. CEUR-WS.
- [p3] Sarah Alice Gaggl, Matthias Thimm, Mauro Vallati. Proceedings of the Third International Workshop on Systems and Algorithms for Formal Argumentation (SAFA’20) . Volume 2672, September 2020, CEUR-WS.org.
- [p2] Sarah Alice Gaggl, Matthias Thimm. Proceedings of the Second Summer School on Argumentation: Computational and Linguistic Perspectives (SSA’16). Volume abs/1608.02441, September 2016, CoRR.
- [p1] Sarah Alice Gaggl, Juan Carlos Nieves, Hannes Strass. Proceedings of the First International Workshop on Argumentation in Logic Programming and Non-Monotonic Reasoning (Arg-LPNMR 2016). Volume abs/1611.02439, November 2016, CoRR.

Dissertation

- [a1] Sarah Alice Gaggl. A Comprehensive Analysis of the cf2 Argumentation Semantics: From Characterization to Implementation. Phd thesis, TU Wien, 2013/03/04.

Technische Berichte

- [t8] Johannes Klaus Fichte, Sarah Alice Gaggl, Dominik Rusovac. Rushing and Strolling among Answer Sets - Navigation Made Easy. Technical Report, arXiv.org, volume CoRR abs/2112.07596, December 2021.
- [t7] Sarah Alice Gaggl, Thomas Linsbichler, Marco Maratea, Stefan Woltran. Design and Results of the Second International Competition on Computational Models of Argumentation. Technical Report, arXiv.org, volume CoRR abs/1909.00621, September 2019.
- [t6] Günther Charwat, Wolfgang Dvořák, Sarah Alice Gaggl, Johannes Peter Wallner and Stefan Woltran. Implementing Abstract Argumentation - A Survey. Technical Report DBAI-TR-2013-82, Technische Universität Wien, 2013.
- [t5] Wolfgang Dvořák, Sarah Alice Gaggl. Incorporating Stage Semantics in the SCC-recursive Schema for Argumentation Semantics. Technical Report DBAI-TR-2012-78, Technische Universität Wien, 2012.
- [t4] Sarah Alice Gaggl, Stefan Woltran. The cf2 Argumentation Semantics Revisited. Technical Report DBAI-TR-2012-77, Technische Universität Wien, 2012.
- [t3] Wolfgang Dvořák, Sarah Alice Gaggl, Johannes Peter Wallner, Stefan Woltran. Making Use of Advances in Answer-Set Programming for Abstract Argumentation Systems. Technical Report DBAI-TR-2011-70, Technische Universität Wien, 2011.
- [t2] Sarah Alice Gaggl, Stefan Woltran. Strong Equivalence for Argumentation Semantics based on Conflict-free Sets. Sarah Gaggl, and Stefan Woltran. Technical Report DBAI-TR-2011-68, Technische Universität Wien, 2011.
- [t1] Uwe Egly, Sarah Alice Gaggl, Stefan Woltran. Answer-Set Programming Encodings for Argumentation Frameworks. Technical Report DBAI-TR-2008-62, Technische Universität Wien, 2008.

Dresden, October 21, 2022