Anna Rapberger

Curriculum Vitae

TU Wien, Favoritenstraße 9-11,1040 Vienna, Austria
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Research Interests

- Non-monotonic Reasoning, Knowledge Representation, Logics in AI
- Abstract Argumentation, Logic Programming, Computational Social Choice
- Algorithms and Computational Complexity

Education

2018-2023 **PhD in Computer Science *with distinction***, *TU Wien*, Vienna, Austria.
⊳ Thesis: *Unpacking the Argument: A Claim-centric View on Abstract Argumentation*
⊳ Supervised by Stefan Woltran and Christian Fermüller

2015–2018 **MSc in Mathematics *with distinction***, *University of Vienna*, Vienna, Austria.
⊳ Master's Thesis: *Connecting Formal Logics and Argumentation Systems*
⊳ Supervised by Christian Fermüller

2011–2015 **BSc in Mathematics**, *University of Vienna*, Vienna, Austria.

Work Experience

Since 2018 **Project Assistant**, *Institute of Logic and Computation, TU Wien*, Vienna, Austria.
⊳ From Oct 2018 - Sep 2022: funded by FWF project W155-N23 *LogiCS in Computer Science*
⊳ Currently funded by
  • WWTF project ICT19-065 *Revealing and Utilizing the Hidden Structure for Solving Hard Problems in AI (REVEAL-AI)*, and
  • FWF project P-32830 *Hybrid Parameterized Problem Solving in Practice (HYPAR)*

July 18-22, 2022 **Visiting Researcher**, *Department of Computer Science, Leipzig University*, Leipzig, Germany.
⊳ Hosted by Ringo Baumann

Sep-Nov 2021 **Visiting Researcher**, *Centro Singular de Investigación en Tecnoloxías Intelixentes (CiTIUS), Universidade de Santiago de Compostela*, Santiago de Compostela, Spain.
⊳ Hosted by José Maria Alonso

Nov-Dec 2020 **Visiting Researcher**, *Department of Computer Science, Leipzig University*, Leipzig, Germany.
⊳ Hosted by Gerhard Brewka and Ringo Baumann

Spring 2019 **Lecturer**, *University of Vienna*, Vienna, Austria.
⊳ Course title: *Programmierpraktikum (Programming in Python)*

2014-2018 **Teaching Assistant**, *University of Vienna*, Vienna, Austria.

Awards

Jun 2021 **Best Student Poster Runner-Up Award** at the *8th International Workshop on Computational Social Choice (COMSOC'21)*

Aug 2020 **Best STAIRS@ECAI 2020 Paper Award** at the *9th European Starting AI Researchers' Symposium (STAIRS'20)*

⊳ including a grant for a 3-month internship at the Research Centre on Intelligent Technologies, University of Santiago de Compostela, Spain

Scientific Activities

PC member at	KR 2023, AAAI 2023, KR 2022
Conference reviews	KR 2023, AAAI 2023, NMR 2022, FoIKS 2022, KR 2022, JELIA 2021, KR 2021, CLAR 2021, ECSQARU 2021, EUMAS 2021, COMMA 2020
Journal reviews	JAR 2020, JAIR 2023, JAR 2023
Organizing Committees	*ASAI Networking Event 2023* (forthcoming)
	▷ joint organization with Amin Anjomshoaa
	2nd Workshop on *New Trends in Formal Argumentation (NTFA'19)*
	▷ joint organization with Martin Diller and Stefan Woltran
Research Visits	*Leipzig University*, Host: Gerhard Brewka and Ringo Baumann, Nov.–Dec. 2020
	CiTIUS, University Santiago de Compostela, Host: José Maria Alonso, Sept.–Nov. 2021
	Leipzig University, Host: Ringo Baumann, July 18-22, 2022

Other Activities

Co-founder and committee member of the NGO *Autobefreit in Wien* (more at autobefreit.at)

Teaching

Lecturer/Instructor	*Abstract Argumentation* at TU Wien (Winter 2022, Spring 2022)
	▷ 4.5 ECTS, part of MSc Logic and Computation, MSc Computational Logic
	▷ taught jointly with Stefan Woltran, Wolfgang Dvořák, and Uwe Egly
	▷ prepared and gave lectures about current research trends
	Research Seminar LogiCS at TU Wien (Spring 2019, Winter 2019, Spring 2020, Winter 2020, Spring 2021)
	▷ 3 ECTS, part of DK Logical Methods in Computer Science, mandatory
	▷ joint organization with Rafael Kiesel in Winter 2020 and Spring 2021
	▷ coordination and organization of the seminar, chairing the sessions, regular announcements
	Programmierpraktikum (Programming in Python) at University of Vienna (Spring 2019)
	▷ 5 ECTS, part of BSc Mathematics, mandatory
	▷ taught jointly with Martin Piskernig and Kerstin Ammann-Silvaggio
	▷ Gave lectures, conducted oral and written exams, supervised projects
Teaching Assistant	*Formal Methods in Computer Science* at TU Wien (Winter 2019, Winter 2020, Spring 2021)
	▷ corrected exercises, gave exercise classes, exam supervision
	Programmierpraktikum (Programming in Python) at University of Vienna (Spring 2018)
	▷ gave lectures, supervised students
	Hilfsmittel aus der EDV (Introduction to computer infrastructure) at University of Vienna (Spring 2018, Winter 2017, Winter 2016, Spring 2016, Winter 2015, Spring 2015, Winter 2014)
	▷ gave lectures, supervised students, evaluated exercises

References

Stefan Woltran
TU Wien
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Gerhard Brewka
Leipzig University
Thesis Reviewer
✉ brewka@informatik.uni-leipzig.de

Christian Fermüller
TU Wien
PhD Co-Supervisor
✉ chrisf@logic.at

Publications

We note that authors are listed alphabetically.

Journal articles

[1] Wolfgang Dvořák, Alexander Greßler, Anna Rapberger, and Stefan Woltran. The complexity landscape of claim-augmented argumentation frameworks. *Artificial Intelligence*, 317:103873, 2023.

[2] Wolfgang Dvořák, Anna Rapberger, and Stefan Woltran. On the different types of collective attacks in abstract argumentation: equivalence results for SETAFs. *Journal of Logic and Computation*, 30(5):1063–1107, 06 2020.

Conference proceedings

[3] Michael Bernreiter, Wolfgang Dvorák, Anna Rapberger, and Stefan Woltran. The effect of preferences in abstract argumentation under a claim-centric view. In *37th AAAI Conference on Artificial Intelligence (AAAI'23), Proceedings*. AAAI Press, 2023. to appear.

[4] Ringo Baumann, Anna Rapberger, and Markus Ulbricht. Equivalence in argumentation frameworks with a claim-centric view - classical results with novel ingredients. In *36th AAAI Conference on Artificial Intelligence (AAAI'22), Proceedings*, pages 5479–5486. AAAI Press, 2022.

[5] Matthias König, Anna Rapberger, and Markus Ulbricht. Just a matter of perspective: Intertranslating expressive argumentation formalisms. In *9th International Conference on Computational Models of Argument (COMMA'22), Proceedings*, pages 212–223. IOS Press, 2022.

[6] Anna Rapberger and Markus Ulbricht. On dynamics in structured argumentation formalisms. In *19th International Conference on Principles of Knowledge Representation and Reasoning (KR'22), Proceedings*, 2022.

[7] Wolfgang Dvořák, Alexander Greßler, Anna Rapberger, and Stefan Woltran. The complexity landscape of claim-augmented argumentation frameworks. In *35th AAAI Conference on Artificial Intelligence (AAAI'21), Proceedings*, pages 6296–6303. AAAI Press, 2021.

[8] Thekla Hamm, Martin Lackner, and Anna Rapberger. Computing kemeny rankings from d-euclidean preferences. In *7th International Conference on Algorithmic Decision Theory (ADT'21), Proceedings*, volume 13023, pages 147–161. LNCS, 2021.

[9] Wolfgang Dvořák, Sarah Alice Gaggl, Anna Rapberger, Johannes Peter Wallner, and Stefan Woltran. The ASPARTIX system suite. In *Computational Models of Argument (COMMA'20), Proceedings*, volume 326 of *Frontiers in Artificial Intelligence and Applications*, pages 461–462. IOS Press, 2020.

[10] Wolfgang Dvořák, Anna Rapberger, Johannes Peter Wallner, and Stefan Woltran. ASPARTIX-V19 - an answer-set programming based system for abstract argumentation. In *Foundations of Information and Knowledge Systems - 11th International Symposium (FoIKS'20), Proceedings*, volume 12012 of *LNCS*, pages 79–89. Springer, 2020.

[11] Wolfgang Dvořák, Anna Rapberger, and Stefan Woltran. Argumentation semantics under a claim-centric view: Properties, expressiveness and relation to setafs. In *17th International Conference on Principles of Knowledge Representation and Reasoning (KR'20), Proceedings*, pages 341–350, 2020.

[12] Wolfgang Dvořák, Anna Rapberger, and Stefan Woltran. On the relation between claim-augmented argumentation frameworks and collective attacks. In *24th European Conference on Artificial Intelligence (ECAI'20), Proceedings*, volume 325 of *FAIA*, pages 721–728. IOS Press, 2020.

[13] Wolfgang Dvorák, Anna Rapberger, and Stefan Woltran. Strong equivalence for argumentation frameworks with collective attacks. In *42nd German Conference on AI (KI'19), Proceedings*, volume 11793 of *LNCS*, pages 131–145. Springer, 2019.

Workshop proceedings and Poster presentations

[14] Michael Bernreiter, Wolfgang Dvorák, Anna Rapberger, and Stefan Woltran. The effect of preferences in abstract argumentation under a claim-centric view. In *20th International Workshop on Non-Monotonic Reasoning (NMR'22)*, volume 3197 of *CEUR Workshop Proceedings*, pages 27–38. CEUR-WS.org, 2022.

[15] Anna Rapberger, Markus Ulbricht, and Johannes Peter Wallner. Argumentation frameworks induced by assumption-based argumentation: Relating size and complexity. In Ofer Arieli, Giovanni Casini, and Laura Giordano, editors, *20th International Workshop on Non-Monotonic Reasoning (NMR'22)*, volume 3197 of *CEUR Workshop Proceedings*, pages 92–103. CEUR-WS.org, 2022.

[16] Ringo Baumann, Anna Rapberger, and Markus Ulbricht. Equivalence in argumentation frameworks with a claim-centric view – classical results with novel ingredients. In *19th International Workshop on Non-Monotonic Reasoning (NMR'21)*. CoRR, 2021.

[17] Wolfgang Dvorák, Matthias König, Anna Rapberger, Johannes Peter Wallner, and Stefan Woltran. ASPARTIX-V - a solver for argumentation tasks using ASP. In *Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP'21)*, 2021.

[18] Thekla Hamm, Martin Lackner, and Anna Rapberger. Computing kemeny rankings from d-euclidean preferences (poster). In *8th international Workshop on Computational Social Choice (COMSOC '21), Poster session*, 2021.

[19] Wolfgang Dvorák, Anna Rapberger, and Johannes Peter Wallner. Labelling-based algorithms for SETAFs. In *3rd International Workshop on Systems and Algorithms for Formal Argumentation (SAFA'20)*, volume 2672 of *CEUR Workshop Proceedings*, pages 34–46. CEUR-WS.org, 2020.

[20] Anna Rapberger. Defining argumentation semantics under a claim-centric view. In *9th European Starting AI Researchers' Symposium (STAIRS'20)*, volume 2655 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2020.