

Dr. Kai Sauerwald

Profile Summary

General

Name	Dr. Kai Sauerwald
Career	B.Sc. Computer Science 2014 (TU Dortmund) M.Sc. Computer Science 2017 (TU Dortmund) PhD (Dr. rer. nat.) 2022 (FernUniversität in Hagen) PostDoc 2022 (Artificial Intelligence Group, FernUniversität in Hagen)
Website	https://www.kai-sauerwald.de

Research

Research Focus	Logical Foundations of Artificial Intelligence
Research Topics	Theory Change, Forgetting, Cognitive Aspects, Reasoning
Publications	55 (entries in DBLP, 2024/12/21)
Conferences	KR, ECAI, JELIA, CogSci, FoIKS, SUM, ECSQARU, RuleML+RR, ...
Journals	AIJ, IJAR, AMAI, KI, (under review: TOCL)
Citations	234 (Google scholar, 2024/12/21)
H-Index	9 (Google scholar, 2024/12/21)
Awards	ECAI 2020, Best Scientific Work 2021, RuleML+RR 2022, Best PhD Thesis 2023

Scientific Activities

Event organisation	KR 2025, ECSQARU 2025, RuleML+RR 2025, COMMA 2024, UR@FLAIRS'24, ICCS 2023, NMR 2023, UR@FLAIRS'23, FCR- 2023, FCR-2022
Memberships	Speaker of the SIG Knowledge Representation and Reasoning (FB WR) as part of the German Informatics Society (GI), NMR Steering Committee
PC	IJCAI, AAI, KR, JELIA, ...
Administration	faculty council, PhD committee, habilitation committee, search committee

Teaching

Experience	14 years. Since 2017 with 4 hours/week (completely independent teaching experience since 2022)
Study programs	B.Sc. computer science, M.Sc. computer science, M.Sc. applied computer science, M.Sc. data science
Courses	Knowledge Representation and Reasoning, Logical and Func- tional Programming, Deduction and Inference Systems, Tutorials, Seminars, ...
Theses	More than 20 B.Sc. theses and M.Sc. theses

Dr. Kai Sauerwald

Curriculum Vitæ

Personal Info

Date of Birth 13th December 1987 in Dortmund, Germany

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Website <https://www.kai-sauerwald.de>

Academic Education

2022 **Dr. rer. nat.**, FernUniversität in Hagen
Thesis: Semantics of Belief Change Operators for Intelligent Agents:
Iteration, Postulates and Realizability [10]
Grade: **summa cum laude**
Reviewers: Prof. Dr. Christoph Beierle, Prof. Dr. Gabriele Kern-Isberner

10/2014 – 01/2017 **Master of Science in Computer Science**, TU Dortmund University
Thesis: Analyse und Synthese Regulärer Ausdrücke: Algorithmen und Komplexität
Advisors: Prof. Dr. Thomas Schwentick, Prof. Dr. Thomas Zeume

10/2010 – 09/2014 **Bachelor of Science in Computer Science**, TU Dortmund University
Thesis: Visibly Pushdown Automata: VPA mit Ausgabe
Advisor: Prof. Dr. Thomas Schwentick

Occupations

Since 2022 Scientific staff member, Artificial Intelligence Group (chair: Prof. Dr. Matthias Thimm), FernUniversität in Hagen, Faculty of Mathematics and Computer Science
Full-time position with teaching duties (non-tenured)

2017 – 2022 Research assistant, Knowledge Based Systems (chair: Prof. Dr. Christoph Beierle), FernUniversität in Hagen, Faculty of Mathematics and Computer Science
Full-time position with teaching duties and contributions to projects funded by *German Research Foundation (DFG)*:
FADE : Intentional forgetting through cognitive-computational methods of prioritization, knowledge compression and contraction
FADEp: Intentional Forgetting and Changes in Work Processes: A Process-Conditional Approach in the Administrative and IT Context

Honors and awards

- Best PhD thesis **Best PhD thesis of the Faculty of Mathematics and Computer Science**
Awarded by the FernUniversität in Hagen as part of the DIES ACADEMICUS 2023
- RuleML+RR 2022 **Best Student Paper Award**
6th International Joint Conference on Rules and Reasoning
For the paper *Semantic Characterizations of AGM Revision for Arbitrary Tarskain Logics* [9]
Together with Faiq Miftakhul Falakh and Sebastian Rudolph
- Best scientific work **Best Scientific Work of the Year 2021**
For the paper *A Conditional Perspective for Iterated Belief Contraction* [21]
Awarded by the Faculty of Mathematics and Computer Science, FernUniversität in Hagen
- ECAI 2020 **Distinguished Paper Award**
24th European Conference on Artificial Intelligence
For the publication *A Conditional Perspective for Iterated Belief Contraction* [21]
Together with Gabriele Kern-Isberner und Christoph Beierle

Academic Activities

- Chair SIG KRR @ GI **Chair of the special interest group Knowledge Representation and Reasoning**
(Fachgruppe Wissensrepräsentation und Schließen) of the technical committee Artificial Intelligence (Fachbereich Künstliche Intelligenz) of the German Computer Science Association (GI, Gesellschaft für Informatik), since 2024
- Guest editor International Journal of Approximate Reasoning (**IJAR**)
Annals of Mathematics and Artificial Intelligence (**AMAI**)
- Journal reviewer Artificial Intelligence (**AIJ**)
Applied Artificial Intelligence (**AAP**)
International Journal of Approximate Reasoning (**IJAR**)
Journal of Artificial Intelligence Research (**JAIR**)
Künstliche Intelligenz (**KUIN**)
Journal of Philosophical Logic (**JPL**)
Journal of Applied Non-Classical Logics (**TNCL**)
Synthese
Studia Logica
- Program committee International Conference of Principles of Knowledge Representation and Reasoning (**KR**), since 2022
Annual Meeting of the Cognitive Science Society (**CogSci**), 2017 to 2022
AAAI Conference on Artificial Intelligence (**AAAI**), since 2022
International Joint Conference on Artificial Intelligence (**IJCAI**), since 2023
European Conference on Logics in Artificial Intelligence (**JELIA**), since 2023
Cognition And OntologieS (**CAOS**), since 2024
International Conference on Scalable Uncertainty Management (**SUM**), since 2024
International Workshop on Nonmonotonic Reasoning (**NMR**), since 2024
- Tutorials **Cognitive Logics: Mechanisms Predicting Human Inference Patterns**
Held at ECAI 2020 jointly with Marco Ragni and Gabriele Kern-Isberner
- Forgetting in Knowledge Representation and Reasoning**
Held at ICCS 2022
- Event Organization Please see the following page for a list

Event Organization

- KR 2025 The 22nd International Conference on Principles of Knowledge Representation and Reasoning (Doctoral Consortium Co-Chair)
- ECSQARU 2025 The 18th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (PC Co-Chair and Local Co-Chair)
- Declarative AI 2025 Rules, Reasoning, Decisions, and Explanations 2025 (Publicity Co-Chair)
- COMMA 2024 The 10th International Conference on Computational Models of Argument (Workshop Contact)
- UR@FLAIRS 2024 Uncertain Reasoning Special Track at the 37th International FLAIRS Conference (PC Co-Chair)
- FCR 2023 The 9th Workshop on Formal and Cognitive Reasoning (PC Co-Chair)
- ICCS 2023 The 28th International Conference on Conceptual Structures (PC Co-Chair)
- NMR 2023 The 21st International Workshop on Nonmonotonic Reasoning (PC Co-Chair)
- UR@FLAIRS 2023 Uncertain Reasoning Special Track at the 36th International FLAIRS Conference (PC Co-Chair)
- FCR 2022 The 8th Workshop on Formal and Cognitive Reasoning (PC Co-Chair)

Invited Activities

- Helsinki 2024 Research Visit at the University of Helsinki
Invited by Prof. Juha Kontinen.
Including an **Invited-Talk** with the title “*A Semantic Perspective of AGM Belief Revision in Tarskian Logics*” at the Helsinki Logic Seminar
- BRAON 2024 The 6th Workshop On Belief Revision, Argumentation, Ontologies, and Norms
Invitation-only event for scientific exchange on Madeira Island, Portugal
- ICCS 2022 The 27th International Conference on Conceptual Structures
Tutorial with title “*Forgetting in Knowledge Representation and Reasoning*”
- BRAON 2022 The 5th Workshop On Belief Revision, Argumentation, Ontologies, and Norms
Invitation-only event for scientific exchange on Madeira Island, Portugal
- BRAON 2019 The 4th Workshop On Belief Revision, Argumentation, Ontologies, and Norms
Invitation-only event for scientific exchange on Madeira Island, Portugal
- KR Conventicle 2019 Knowledge Representation Conventicle 2019
Co-located with the 16th Pacific Rim International Conference on Artificial Intelligence. **Invited-Talk** with the title “*Forgetting and Gradual Iterated Contraction*”.

Independent Teaching

- 2024 Seminar Logiken in der Künstlichen Intelligenz (**Logics in AI**)
- since 2022 Deduktions- und Inferenzsysteme (**Deduction Systems and Inference Systems**)
rotation: annual Topics: propositional and predicate logics, Herbrand semantics, logic calculi, resolution, tableau methods, equational unification, paramodulation, term-rewriting systems, logic programming, non-monotonic reasoning, probabilistic reasoning
- since 2023 Supervision and reviewing of Bachelor and Master theses
- Tutorials Please see also the tutorials listed in “Invited Activities”

Other Teaching Experiences

- since 2017 **Co-Supervision of theses**
Co-supervision of more than 20 bachelor's theses and master's theses
- since 2017 **Variety of seminars on Logic and Knowledge Representation and Reasoning**
rotation: semiannual Topics: logic methods in knowledge representation and reasoning
Duties: supervision of 3-5 students (undergraduate and graduate), including finding an appropriate seminar topic for these students
- 2020 – 2022 **Logisches und funktionales Programmieren (Logic and Functional Programming)**
rotation: annual Topics: logic programming with Prolog, functional programming with Scheme
Duties: assisting on exams, tutoring students, administrating tutorials
- 2020 – 2021 **Deduktions- und Inferenzsysteme (Deduction and Inference Systems)**
rotation: annual Topics: propositional and predicate logics, Herbrand semantics, logic calculi, resolution, tableau methods, equational unification, paramodulation, term-rewriting systems, logic programming, non-monotonic reasoning, probabilistic reasoning
Duties: assisting on exams, tutoring students, administrating tutorials
- 2017 – 2020 **Wissensbasierte Systeme (Knowledge-Based Systems)**
rotation: annual Topics: propositional and predicate logics, rule-based systems, machine learning, case-based reasoning, non-monotonic logics and reasoning with uncertainty
Duties: assisting on exams, tutoring students, administrating tutorials
- 2017 – 2020, **Methoden der Wissensrepräsentation und -verarbeitung (Knowledge Representation and Reasoning)**
since 2023 rotation: annual Topics: propositional and predicate logics, probability and information theory, resolution, actions and planning, truth maintenance-systems, default logics, probabilistic networks, Dempster-Shafer theory, fuzzy-logics
Duties: assisting on exams, tutoring students, administrating tutorials

Administrative Services

- since 2024 Faculty Council
Faculty of Mathematics and Computer, FernUniversität in Hagen
- since 2024, Habilitation committee
2020 – 2022 Faculty of Mathematics and Computer, FernUniversität in Hagen
- 2020 Appointment committee for a new professor for databases and information systems
Faculty of Mathematics and Computer, FernUniversität in Hagen
- 2015 – 2017 Appointment committee for a new professor for software engineering
Department of Computer Science, TU Dortmund University
- 2015 – 2017 Doctoral committee
Department of Computer Science, TU Dortmund University
- 2013 Appointment committee for a new professor for data mining
Department of Computer Science, TU Dortmund University
- 2012 Appointment committee for a new professor for bioinformatics
Faculty of Biology and Biotechnology, Ruhr University Bochum

Software

- logical-systems This library allows modelling/implementing logics that fit into the general scheme of "Institutions" from category theory.
See: <https://github.com/Landarzar/logical-systems>
- alchourron This collection of libraries and programs allows modelling/execution of belief revision and belief contraction operators. Joint work with the student Phillip Heltweg.
For a starting point see: <https://github.com/Landarzar/alchourron>
- SystemP-tree This software allows to compute a proof tree of a System P inference.
See: <https://github.com/Landarzar/System-P-Proof-Tree>

References

Prof. Dr. Christoph Beierle

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Prof. Dr. Gabriele Kern-Isbener

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Department of Computer Science, TU Dortmund University
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Prof. Dr. Sebastian Rudolph

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Dr. Kai Sauerwald

Publications

Publications

- [1] **Kai Sauerwald**, Eda Ismail-Tsaous, Marco Ragni, Gabriele Kern-Isberner, and Christoph Beierle. “Sequential Merging and Construction of Rankings as Cognitive Logic”. In: *International Journal of Approximate Reasoning* 176 (2025), p. 109321.
- [2] Christoph Beierle, Marco Ragni, **Kai Sauerwald**, Frieder Stolzenburg, and Matthias Thimm. “Formal and cognitive reasoning”. In: *International Journal of Approximate Reasoning* 174 (2024), p. 109270.
- [3] Yehia Hatab, **Kai Sauerwald**, and Matthias Thimm. “A Hitting Set Approach to Inconsistent-Tolerant Reasoning”. In: *Proceedings of the 22th International Workshop on Non-Monotonic Reasoning (NMR 2024) co-located with 21st International Conference on Principles of Knowledge Representation and Reasoning (KR 2024)*. Ed. by Nina Gierasimczuk and Jesse Heyninck. CEUR Workshop Proceedings. 2024, pp. 152–161.
- [4] **Kai Sauerwald**. “Credibility-Limited Revision for Epistemic Spaces”. In: *Proceedings of the 16th International Conference on Scalable Uncertainty Management (SUM 2024)*. Ed. by Sébastien Destercke, Maria Vanina Martinez, and Giuseppe Sanfilippo. Vol. 15350. LNCS. Springer, 2024, pp. 429–444.
- [5] **Kai Sauerwald**. “Semantics of Belief Change Operators for Intelligent Agents”. In: *Künstliche Intell.* 38.1 (2024), pp. 89–93.
- [6] **Kai Sauerwald**, Christoph Beierle, and Gabriele Kern-Isberner. “Propositional Variable Forgetting and Marginalization: Semantically, Two Sides of the Same Coin”. In: *Proceedings of the 13th International Symposium on Foundations of Information and Knowledge Systems (FoIKS 2024)*. Ed. by Arne Meier and Magdalena Ortiz. Vol. 14589. LNCS. Springer, 2024, pp. 144–162.
- [7] **Kai Sauerwald**, Eda Ismail-Tsaous, and Nina Thorwart. “A Report on Sequential KR-Approaches as Cognitive Logic”. In: *Joint Proceedings of the Joint Workshop on Knowledge Diversity and Cognitive Aspects of KR and the Workshop on Symbolic and Neuro-Symbolic Architectures for Intelligent Robotics Technology (KoDis-CAKR-SYNERGY 2024) co-located with the 21st International Conference on Principles of Knowledge Representation and Reasoning (KR 2024)*. Ed. by Lucía Gómez Álvarez, Jonas Haldimann, Jesse Heyninck, Srdjan Vesic, Francesco Fabiano, and Marcello Balduccini. 2024.
- [8] **Kai Sauerwald** and Juha Kontinen. “A First Peek into Preferential Logics with Team Semantics”. In: *Proceedings of the 22th International Workshop on Non-Monotonic Reasoning (NMR 2024) co-located with 21st International Conference on Principles of Knowledge Representation and Reasoning (KR 2024)*. Ed. by Nina Gierasimczuk and Jesse Heyninck. CEUR Workshop Proceedings. 2024, pp. 94–100.
- [9] **Kai Sauerwald** and Matthias Thimm. “The Realizability of Revision and Contraction Operators in Epistemic Spaces”. In: *Proceedings of the 21st International Conference on Principles of Knowledge Representation and Reasoning (KR 2024)*. Aug. 2024, pp. 665–670.

- [10] Özgür Lütfü Özçep, Nele Rußwinkel, **Kai Sauerwald**, and Diedrich Wolter, eds. *Proceedings of the 10th Workshop on Formal and Cognitive Reasoning co-located with the 47th German Conference on Artificial Intelligence (KI 2024)*, Würzburg, Germany, September 23, 2024. Vol. 3763. CEUR Workshop Proceedings. CEUR-WS.org, 2024.
- [11] Christoph Beierle, **Kai Sauerwald**, François Schwarzenruber, and Frieder Stolzenburg, eds. *Proceedings of the 9th Workshop on Formal and Cognitive Reasoning co-located with the 46th German Conference on Artificial Intelligence (KI 2023)*, Berlin, Germany, September 26, 2023. Vol. 3500. CEUR Workshop Proceedings. CEUR-WS.org, 2023.
- [12] Eda Ismail-Tsaous, **Kai Sauerwald**, Marco Ragni, Gabriele Kern-Isberner, and Christoph Beierle. “On the Cognitive Logic of Human Propositional Reasoning: Merging Ranking Functions”. In: *Proceedings of the 17th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU 2023)*. Ed. by Zied Bouraoui and Srdjan Vesic. Vol. 14294. LNCS. Springer, 2023, pp. 224–238.
- [13] **Kai Sauerwald** and Matthias Thimm, eds. *Proceedings of the 21st International Workshop on Non-Monotonic Reasoning co-located with the 20th International Conference on Principles of Knowledge Representation and Reasoning (KR 2023) and co-located with the 36th International Workshop on Description Logics (DL 2023)*, Rhodes, Greece, September 2-4, 2023. Vol. 3464. CEUR Workshop Proceedings. CEUR-WS.org, 2023.
- [14] Manuel Ojeda-Aciego, **Kai Sauerwald**, and Robert Jäschke, eds. *Graph-Based Representation and Reasoning - 28th International Conference on Conceptual Structures, ICCS 2023, Berlin, Germany, September 11-13, 2023, Proceedings*. Vol. 14133. LNCS. Springer, 2023. ISBN: 978-3-031-40959-2.
- [15] Marco Wilhelm, Diana Howey, Gabriele Kern-Isberner, **Kai Sauerwald**, and Christoph Beierle. “Activation-based Conditional Inference”. In: *Journal of Applied Logics* 10.2 (2023), pp. 221–247.
- [16] Christoph Beierle, Jonas Haldimann, Daniel Kollár, **Kai Sauerwald**, and Leon Schwarzer. “An Implementation of Nonmonotonic Reasoning with System W”. In: *Proceedings of the 45th German Conference Advances in Artificial Intelligence (KI 2022)*. Ed. by Ralph Bergmann, Lukas Malburg, Stephanie C. Rodermund, and Ingo J. Timm. Vol. 13404. LNCS. Springer, 2022, pp. 1–8.
- [17] Christoph Beierle, Marco Ragni, Frieder Stolzenburg, **Kai Sauerwald**, and Matthias Thimm, eds. *Proceedings of the 8th Workshop on Formal and Cognitive Reasoning co-located with the 45th German Conference on Artificial Intelligence (KI 2022)*. Vol. 3242. CEUR Workshop Proceedings. CEUR-WS.org, 2022.
- [18] Faiq Miftakhul Falakh, Sebastian Rudolph, and **Kai Sauerwald**. “Semantic Characterizations of AGM Revision for Tarskian Logics”. In: *Proceedings of the 6th International Joint Conference on Rules and Reasoning (RuleML+RR 2022)*. Ed. by Guido Governatori and Anni-Yasmin Turhan. Vol. 13752. LNCS. Springer, 2022, pp. 95–110.
Awarded as the best student paper.
- [19] **Kai Sauerwald**. *Semantics of Belief Change Operators for Intelligent Agents: Iteration, Postulates, and Realizability*. Vol. 352. Dissertations in Artificial Intelligence. IOS Press, 2022. ISBN: 978-3-89838-768-2.
Best PhD thesis of the year at FernUniversität in Hagen.

- [20] **Kai Sauerwald** and Christoph Beierle. “Iterated Belief Change, Computationally”. In: *Proceedings of the 19th International Conference on Principles of Knowledge Representation and Reasoning (KR 2022)*. Ed. by Gabriele Kern-Isberner, Gerhard Lakemeyer, and Thomas Meyer. 2022, pp. 410–414.
- [21] **Kai Sauerwald**, Gabriele Kern-Isberner, Alexander Becker, and Christoph Beierle. “From Forgetting Signature Elements to Forgetting Formulas in Epistemic States”. In: *Proceedings of the 15th International Conference on Scalable Uncertainty Management (SUM 2022)*. Ed. by Florence Dupin de Saint-Cyr, Meltem Öztürk-Escoffier, and Nico Potyka. Vol. 13562. LNCS. Springer, 2022, pp. 92–106.
- [22] Marco Wilhelm, Diana Howey, Gabriele Kern-Isberner, **Kai Sauerwald**, and Christoph Beierle. “Integrating Cognitive Principles From ACT-R Into Probabilistic Conditional Reasoning by Taking the Example of Maximum Entropy Reasoning”. In: *Proceedings of the Thirty-Fifth International Florida Artificial Intelligence Research Society Conference (FLAIRS 2022)*. Ed. by Roman Bartak, Fazel Keshtkar, and Michael Franklin. 2022.
- [23] Alexander Becker, Gabriele Kern-Isberner, **Kai Sauerwald**, and Christoph Beierle. “Forgetting Formulas and Signature Elements in Epistemic States”. In: *Proceedings of the 19th International Workshop on Non-Monotonic Reasoning (NMR 2021)*. Ed. by Leila Amgoud and Richard Booth. 2021, pp. 233–242.
- [24] Faiq Miftakhul Falakh, Sebastian Rudolph, and **Kai Sauerwald**. “A Katsuno-Mendelzon-Style Characterization of AGM Belief Base Revision for Arbitrary Monotonic Logics (Preliminary Report)”. In: *Proceedings of the 7th Workshop on Formal and Cognitive Reasoning (FCR-2021) co-located with the 44th German Conference on Artificial Intelligence (KI 2021)*. Ed. by Christoph Beierle, Marco Ragni, Frieder Stolzenburg, and Matthias Thimm. Vol. 2961. CEUR Workshop Proceedings. CEUR-WS.org, 2021, pp. 48–59.
- [25] Joans Haldimann, **Kai Sauerwald**, Martin von Berg, Gabriele Kern-Isberner, and Beierle. “Towards a Framework of Hansson’s Descriptor Revision for Conditionals”. In: *Proceedings of the 36th ACM/SIGAPP Symposium on Applied Computing (SAC ’21)*. Ed. by Chih-Cheng Hung, Jiman Hong, Alessio Bechini, and Eunjee Song. ACM, 2021, pp. 889–891.
- [26] Jonas Haldimann, **Kai Sauerwald**, Martin von Berg, Gabriele Kern-Isberner, and Christoph Beierle. “Conditional Descriptor Revision and Its Modelling by a CSP”. In: *Logics in Artificial Intelligence - 17th European Conference, JELIA 2021, Virtual Event, May 17-20, 2021, Proceedings*. Ed. by Wolfgang Faber, Gerhard Friedrich, Martin Gebser, and Michael Morak. Vol. 12678. LNCS. Springer, 2021, pp. 35–49.
- [27] **Kai Sauerwald** and Philip Heltweg. “On Using Model Checking for the Certification of Iterated Belief Changes”. In: *Proceedings of the 7th Workshop on Formal and Cognitive Reasoning (FCR-2021) co-located with the 44th German Conference on Artificial Intelligence (KI 2021)*. Ed. by Christoph Beierle, Marco Ragni, Frieder Stolzenburg, and Matthias Thimm. Vol. 2961. CEUR Workshop Proceedings. CEUR-WS.org, 2021, pp. 23–33.
- [28] **Kai Sauerwald**, Philip Heltweg, and Christoph Beierle. “Certification of Iterated Belief Changes via Model Checking and its Implementation”. In: *Proceedings of the 19th International Workshop on Non-Monotonic Reasoning (NMR 2021) co-located with the 18th International Conference on Principles of Knowledge Representation and Reasoning (KR 2021)*. Ed. by Leila Amgoud and Richard Booth. Vol. 2961. CEUR Workshop Proceedings. CEUR-WS.org, 2021, pp. 23–33.

- [29] Marco Wilhelm, Diana Howey, Gabriele Kern-Isberner, **Kai Sauerwald**, and Christoph Beierle. “A Brief Introduction Into Activation-Based Conditional Inference”. In: *Proceedings of the 7th Workshop on Formal and Cognitive Reasoning (FCR-2021) co-located with the 44th German Conference on Artificial Intelligence (KI 2021)*. Ed. by Christoph Beierle, Marco Ragni, Frieder Stolzenburg, and Matthias Thimm. Vol. 2961. CEUR Workshop Proceedings. CEUR-WS.org, 2021, pp. 4–8.
- [30] **Kai Sauerwald**, Jonas Haldimann, Martin von Berg, and Christoph Beierle. “Descriptor Revision for Conditionals: Literal Descriptors and Conditional Preservation”. In: *Proceedings of the 43rd German Conference on AI (KI 2020)*. Ed. by Ute Schmid, Franziska Klügl, and Diedrich Wolter. Vol. 12325. LNCS. Springer, 2020, pp. 204–218.
- [31] **Kai Sauerwald**, Gabriele Kern-Isberner, and Christoph Beierle. “A Conditional Perspective for Iterated Belief Contraction”. In: *Proceedings of the 24th European Conference on Artificial Intelligence (ECAI 2020)*. Ed. by Giuseppe De Giacomo, Alejandro Catalá, Bistra Dilkina, Michela Milano, Senén Barro, Alberto Bugarin, and Jerome Lang. Vol. 325. Frontiers in Artificial Intelligence and Applications. IOS Press, 2020, pp. 889–896.
Awarded with the distinguished paper award.
- [32] Marco Ragni, Gabriele Kern-Isberner, Christoph Beierle, and **Kai Sauerwald**. “Cognitive Logics - Features, Formalisms, and Challenges”. In: *Proceedings of the 24th European Conference on Artificial Intelligence (ECAI 2020)*. Ed. by Giuseppe De Giacomo, Alejandro Catalá, Bistra Dilkina, Michela Milano, Senén Barro, Alberto Bugarin, and Jérôme Lang. Vol. 325. Frontiers in Artificial Intelligence and Applications. IOS Press, 2020, pp. 2931–2932.
- [33] Christoph Beierle, Gabriele Kern-Isberner, **Kai Sauerwald**, Tanja Bock, and Marco Ragni. “Towards a General Framework for Kinds of Forgetting in Common-Sense Belief Management”. In: *Künstliche Intelligenz* 33.1 (2019), pp. 57–68.
- [34] Christoph Beierle, Steven Kutsch, and **Kai Sauerwald**. “Compilation of static and evolving conditional knowledge bases for computing induced nonmonotonic inference relations”. In: *Ann. Math. Artif. Intell.* 87.1-2 (2019), pp. 5–41.
- [35] **Kai Sauerwald**. “Modelling the dynamics of forgetting and remembering by a system of belief changes: student research abstract”. In: *Proceedings of the 34th ACM/SIGAPP Symposium on Applied Computing (SAC 2019)*. Ed. by Chih-Cheng Hung and George A. Papadopoulos. ACM, 2019, pp. 1168–1171.
- [36] **Kai Sauerwald** and Christoph Beierle. “Decrement Operators in Belief Change”. In: *Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU 2019), Proceedings*. Ed. by Gabriele Kern-Isberner and Zoran Ognjanovic. Vol. 11726. LNCS. Springer, 2019, pp. 251–262.
- [37] **Kai Sauerwald** and Jonas Haldimann. “WHIWAP: Checking Iterative Belief Changes”. In: *Proceedings of the 8th Workshop on Dynamics of Knowledge and Belief (DKB-2019) and the 7th Workshop KI & Kognition (KIK-2019) co-located with 44nd German Conference on Artificial Intelligence (KI 2019)*. Ed. by Christoph Beierle, Marco Ragni, Frieder Stolzenburg, and Matthias Thimm. Vol. 2445. CEUR Workshop Proceedings. CEUR-WS.org, 2019, pp. 14–23.
- [38] Gabriele Kern-Isberner, Tanja Bock, Christoph Beierle, and **Kai Sauerwald**. “Axiomatic Evaluation of Epistemic Forgetting Operators”. In: *Proceedings of the Thirty-Second International Florida Artificial Intelligence Research Society Conference (FLAIRS 32)*. Ed. by Roman Barták and Keith W. Brawner. AAAI Press, 2019, pp. 470–475.

- [39] Gabriele Kern-Isberner, Tanja Bock, **Kai Sauerwald**, and Christoph Beierle. “Belief Change Properties of Forgetting Operations over Ranking Functions”. In: *Proceedings of the 16th Pacific Rim International Conference on Artificial Intelligence (PRICAI 2019)*. Ed. by Abhaya C. Nayak and Alok Sharma. Vol. 11670. LNCS. Springer, 2019, pp. 459–472.
- [40] Christoph Beierle, Tanja Bock, Gabriele Kern-Isberner, Marco Ragni, and **Kai Sauerwald**. “Kinds and Aspects of Forgetting in Common-Sense Knowledge and Belief Management”. In: *Proceedings of the 41st German Conference on AI (KI 2018)*. Ed. by Frank Trollmann and Anni-Yasmin Turhan. Vol. 11117. LNCS. Springer, 2018, pp. 366–373.
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