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1 Roles | Education | Employment

Main Academic Roles

- 2023 Associate Professor (tenured) **unibz**.
- 2023 Director, KRDB.
Research Centre for Knowledge and Data of **unibz** (macro-area coordinator in the Faculty of Engineering)
- 2023 President, IAOA (elected January 2023).
International Association for Ontology and its Applications, IAOA.org

Education Since Leaving School

- 2023 *Italian National Habilitation for Full Professor (Prima Fascia)*. Scientific sector: 01/B1 (Informatica).
- 2023 *Italian National Habilitation for Full Professor (Prima Fascia)*. Scientific sector: 09/H1 (Sistemi Di Elaborazione Delle Informazioni).
- 2023 *Italian National Habilitation for Associate Professor (Seconda Fascia)*. Scientific sector: 01/A1 (Logica Matematica e Matematiche Complementari).
- 2023 *Italian National Habilitation for Associate Professor (Seconda Fascia)*. Scientific sector: 11/C2 (Logica, Storia e Filosofia Della Scienza).
- 2017 *Italian National Habilitation for Associate Professor (Seconda Fascia)*. Scientific sector: 01/B1 (Informatica).
- 2010 Recognition of German Habilitation-equivalent status (general teaching and examination authority) by the University of Bremen. (“habilitationsäquivalente Leistungen als ‘Wissenschaftler in herausgehobener Position’ ”)
- 2005 *Ph.D.*, thesis: ‘ *\mathcal{E} -Connections and Logics of Distance*’, University of Liverpool; Supervisor: Frank Wolter; Committee: Wiebe van der Hoek & Melvin C. Fitting.
- 2000 *M.Sc.*, thesis: ‘*Kripke-Type Semantics for Modal Predicate Logics*’ (‘Diplom in Mathematik’), Humboldt University at Berlin & Free University Berlin; Supervisors: Marcus Kracht & Ronald B. Jensen (with Distinction).
- 1996–2000 Mathematics & Philosophy at Humboldt University at Berlin & Free University Berlin.
- 1996 ‘*Certificate in Mathematics*’, University of Sussex at Brighton. Mathematics, Philosophy, and Cognitive and Computer Science (with Distinction).
- 1993–1995 Mathematics & Philosophy at Ruhr-University of Bochum.

Professional Highlights

Publications. *Google Scholar*: Citations 4444; h-index 31; i10-index 86; More than 100 publications in books and peer reviewed international journals, conferences and workshops. Highlights include: Artificial Intelligence, Handbook of the Philosophy of Logic, Logica Universalis, J. on Data Semantics, Studia Logica, ACM Transactions on Computational Logic, Applied Ontology, J. of Applied Non-Classical Logic, J. of Biomedical Semantics, IJCAI, AAAI, KR, ECAI, ER, K-CAP, FOIS, ICCS, EKAW.

Awards. Awards for teaching efforts (Berlin), PhD thesis (UK Finalist 2005, British Computer Society BCS), experimental modelling work (DKR 2011), Best Research Papers at FOIS 2012, K-CAP 2017, FOIS 2021, and at EPIA 2022. FOIS and K-CAP Best Papers invited to the IJCAI best paper sister conference track.

Teaching. At the universities of Berlin, Leipzig, Liverpool, Manchester, Bremen, Magdeburg, and Bolzano; at the European Summer School for Logic, Language and Information (ESSLLI); at the Interdisciplinary School on Applied Ontology (ISAO), at the Indian Logic School; at the School of Universal Logic; in the European Master Program on Computational Logic (EMCL), at the Institute of Advanced Study Melbourne.

Supervision. PhD student supervision at the Universities of Bremen, Magdeburg, and Bolzano; examination experience at all levels. BA/MA supervision and BA & MA final thesis commission;

Scientific Impact & Funding. Co-designer of the description logic *SR_QIQ* underlying the Web Ontology Language OWL 2 DL, the logic combination technique of \mathcal{E} -connections, and the heterogeneous ontology language DOL. PI or co-PI of **unibz** projects TREE4TREE, KNOESI, ONTORATOR, STELLA, LOGIS, CREED, CIAO, and COCO. Principal Investigator in Spaceportal/Ontohub (Bremen), EU FP7 Project COINVENT ‘Concept Invention Theory’ [2.7 Million Euro total] and the DAAD-MIUR project SCORE.

Standardisation. Co-project leader of the OMG standardisation initiative ‘‘OntoIOp’’ concerning heterogeneous ontology integration and interoperability (DOL language), formally adopted in 2016, finalised in 2018. A global effort with over 40 experts involved worldwide.

Organisation. Chair of the Bolzano Summer of Knowledge 2020/21, General Chair of EKAW 20 and 22, ICCS 22 and FOIS 2018; PC chair of DL 2023 and FOIS 2014; General Chair of JOWO 16 and ISAO 16; General and Local Chair of JOWO 2017; Organiser and PC chair of over 20 international workshops; member of the steering committees of EKAW and FOIS. Founding member of the International Association for Ontology and its Applications (IAOA), elected member of the IAOA Executive Council and President of the IAOA since 2023.

Editor. Member of the Editorial Board of Applied Ontology and Associate Editor of CEUR; Special Issues of Applied Ontology on ‘Modular Ontologies’ and ‘Foundational Ontologies’ and of the Semantic Web Journal ‘Ontologies and Explainability’; more than ten conference proceedings published with IOS press (FOIS and WoMO) and CEUR (SHAPES, WoMO, FofAI, CAOS, JOWO); co-editor of a volume on ‘Concept Invention Theory’ (Springer).

Program Committees. More than 60 major international conferences and workshops, e.g. KR, IJCAI, ECAI, AAAI, FOIS, ISWC, ESWC, DL, OWLED, AIMS.

Collaboration. Strong collaborations working with internationally renowned groups at Bremen, Dublin, Genova, Jönköping, Magdeburg, Liverpool, Edinburgh, Manchester, Oxford, Padova, London, Trento, Milan, Barcelona, Toronto, Brasília, Geneva, amongst others.

Professional Experience

- March 2015–Present** Assistant Professor (2015–23), Associate Professor (2023, tenured), KRDB Research Centre for Knowledge and Data, Free University of Bozen-Bolzano, Italy.
Responsibilities: Research and teaching activity focused on the intersection of computational logic, cognitive modelling, and computational creativity. Managing several research projects including a FET Open Horizon 2020 project that moved from Magdeburg.
- February 2014–March 2015** Principal Investigator, Theoretical Computer Science group (Formal Methods and Semantics), Otto-von-Guericke University of Magdeburg, Germany.
Responsibilities: Research and teaching activity focused on applied ontology and concept invention. Main focus on directing the FET Open Horizon 2020 project ‘COINVENT’.
- February 2007–January 2014** Postdoctoral Research Fellow, SFB/TR 8 Spatial Cognition, project ‘OntoSpace’, University of Bremen, Germany.
Responsibilities: Research and teaching activity focused on spatial logic and cognition, algebraic specification techniques, and the design of the now OMG-standardised (since 2018) Distributed Ontology Language DOL.
- October 2004–December 2006** Postdoctoral Research Associate, EPSRC project ‘*Extending Expressive Description Logics*’, University of Manchester, School of Computer Science, Information Management Group, UK.
Responsibilities: Research and teaching activity focused on extending expressive description logics underlying the OWL DL standard. Designed and published the logic SROIQ underlying the OWL 2 DL standard (with I. Horrocks and U. Sattler).
- January 2003–September 2004** Research Assistant, Logic and Computation Group, Department of Computer Science, University of Liverpool, UK.
Responsibilities: Research and teaching activity focused on designing multi-modal logic combination techniques, in particular involving spatial logics. Invented the influential E-connections technique as part of my PhD work.
- August 2000–December 2002** Research Assistant, DFG-project ‘*Combination of Modal and Description Logics for the Representation of Intensional and Dynamical Knowledge*’, Intelligent Systems Department, Leipzig.
Responsibilities: Research and teaching activity focused on designing multi-modal logic combination techniques; initiating PhD work; teaching logic courses.
- 1998** University teaching position for a seminar on the *Philosophy of Mathematics*, Humboldt University at Berlin.
Responsibilities: Directing interdisciplinary teaching efforts following a teaching scholarship from Humboldt University.
- 1997–1999** Teaching Assistant, Humboldt University at Berlin.
Responsibilities: Teaching assistant in the mathematics department.
- 1995** Teaching Assistant (‘Wissenschaftliche Hilfskraft’), University of Bochum.
Responsibilities: Teaching assistant in the philosophy department.

Other Academic Responsibilities and Involvement

Internal appointments at **unibz**

- Director, KRDB, Research Centre for Knowledge and Data of **unibz**. This role involves the coordination of the activities of this macro-area within the Faculty of Engineering founded in 2023.
- Member of the Research Board of the Faculty of Engineering, **unibz**.
- As member of the Steering Committee of the PhD Program of Computer Science (Oliver Kutz, Antonio Liotta, Xiaofeng Wang), re-designed the PhD program of the Faculty of Computer Science, and deployed the new call for PhD scholarships in 2022.
- Master final exam/thesis committee member for the “Master in Computer Science” (2022).
- Bachelor final exam/thesis committee member for the “Bachelor Informatics and Management of Digital Business” (2022).
- Bachelor final exam/thesis committee member for the “Bachelor in Computer Science” (2016).
- Re-negotiating and extending Erasmus agreement between **unibz** and University of Osnabrück, Germany, covering the departments of Cognitive Science and of Computer Science.
- Member of the Steering Committee for the PhD Program in Computer Science of the **unibz** Faculty of Computer Science (since 2021).
- Member of the Lecturer’s Committee of the PhD in Computer Science of the **unibz** Faculty of Computer Science (since 2016).
- Supervising company/industrial and academic student internships, e.g. at A. Loacker Spa/AG (A. Loacker & Söhne GmbH) and EURAC Research.
- Bachelor student tutor (since 2018).
- Negotiated and overseeing Erasmus agreement between **unibz** and University of Osnabrück, Germany.

External appointments at national and international level

- **Editorial Board** of Applied Ontology (IOS Press).
- **Associate Editor** of CEUR (IAOA sub-series).
- **Steering Committee** of the *International Conference on Knowledge Engineering and Knowledge Management* (EKAW).
- **Steering Committee** of the *International Conference on Computational Creativity* (ICCC).
- **Steering Committee** of the *International Conference on Formal Ontology in Information Systems* (FOIS).

- **Steering Committee** of the *International Workshop Series on Modular Knowledge* (MK, formerly WoMO/ArCOE).
- **Steering Committee** (and co-creator) of the *International Workshop Series 'Joint Ontology Workshops'* (JOWO).
- International Association for Ontology and its Applications (**IAOA**):
Founding Member (2009), co-chair of the “Infrastructure Committee” (since 2010).
Executive Council since 2012.
Vice-president of the IAOA: elected 2015, re-elected 2018.
President of the IAOA: elected 2023.
- **Committee President**, PhD qualifying examination committee, ICT Doctoral School, University of Trento (2011).

Professional Societies

- Association for Computing Machinery (**ACM**), since 2017.
- Association for Computational Creativity (**ACC**). Member since 2016.
- Association for Formal Ontology and its Applications (**IAOA**). Member since 2009.
- Association Neural-Symbolic Learning and Reasoning (**NeSy**). Member since 2016.
- Deutsche Gesellschaft für Informatik (**GI**). Member since 2012–15.
- Scandinavian Logic Society. Member since 2011.
- Australasian Association for Logic, Member since 2010.
- Association Computability in Europe (**CiE**). Member since 2008.
- Association for Symbolic Logic (**ASL**). Member since 2000–08.
- Deutsche Vereinigung für Mathematische Logik und für Grundlagen der Exakten Wissenschaften (‘German Association for Mathematical Logic and for the Foundations of the Exact Sciences’) (**DVMLG**). Member since 2000.

Language Competence

German. Native Speaker

English. C2, Cambridge ESOL, CAE Grade A

Italian. B1 level, Attestato di bilinguismo, Provincia Autonoma di Bolzano

French. Elementary

2 Teaching | Supervision

Teaching Summary

He designed and taught several courses at the European Summer School in Logic, Language and Information: ‘Ontologies: Structuring, Modularity, and Heterogeneity’ (ESSLLI-2009, Bordeaux, July 2009), ‘Proof Complexity of Non-Classical Logics’ (ESSLLI-2010, Copenhagen, August 2010), ‘The Distributed Ontology Language DOL’ (ESSLLI 2016), and ‘Logic, ontology and planning: the robot’s knowledge’ (ESSLLI 2018). He moreover gave an invited tutorial on ‘ \mathcal{E} -connections of Spatial Logics’ at the Indian Logic School in 2012 (Manipal), and taught a tutorial on ‘Connecting Logics’ at the 4th World Congress and School on Universal Logic, Rio de Janeiro, Brazil, 2013.

He was an invited speaker at the Symposium on Ontology between Philosophy and Computer Science, affiliated to the 14th Congress of Logic, Methodology and Philosophy of Science (CLMPS-2011), Nancy, France, 2011, at the 3rd World Congress on the Square of Opposition, Beirut, Lebanon, 2012, and at the workshop on Computational Creativity, Concept Invention, and General Intelligence, C3GI at ECAI 2014, Prague, Czech Republic. He moreover gave an invited tutorial on the DOL metalanguage at the Institute of Advanced Study at La Trobe University Melbourne in 2018, and will teach at the 2023 ISAO summer school on Applied Ontology (Sherbrooke, Québec, Canada).

His teaching at the University of Bremen (Lehrauftrag since 2009) focused on interdisciplinary lectures and seminars for the Departments of Computer Science, Linguistics, Philosophy, and Digital Media, including courses on ‘Vagueness in Language and Logic’, ‘Information Flow in Distributed Systems’, and ‘From Syllogism to Common Sense’. He also taught a joined block seminar on ‘Heterogeneous Ontologies’ for students from Münster and Bremen in 2009.

At the University of Magdeburg he was teaching one lecture and one seminar per semester in the areas of formal methods, logic and KR, ontology engineering, and computational creativity.

At the Free University of Bozen-Bolzano, he was teaching a 1st year course ‘Introduction to Information Science’ for the BA in Industrial and Mechanical Engineering, a foundational course covering basic computer science theory and applications. He was moreover teaching seminars on ‘Data Semantics’, and taught ‘Introduction to Management Engineering’, a class dedicated to teaching students to go through the full life-cycle from a first brainstormed idea to a full product development and business plan. Recently he covers yearly the first year BA course ‘Logic and Discrete Mathematics’. The course has been developed both in German and in English, and a ‘Trilingual Guide to the World of Discrete Mathematics’ has been finished in 2021 which is an English language compendium to the course including a tri-lingual dictionary English-German-Italian to the mathematical technical vocabulary of Discrete Mathematics. He is also regularly teaching research seminars within the PhD program of the CS department and is currently offering the course “Knowledge Representation” in the Bachelor of Computer Science.

He previously taught classes in the Department of Philosophy at Ruhr-University Bochum,

the Departments of Mathematics and Philosophy at Humboldt University Berlin, and the Departments of Computer Science at the Universities of Leipzig and Liverpool. Topics covered include formal logic and set theory at elementary and advanced levels, history of logic, philosophy of language, as well as knowledge representation. At Humboldt University, he designed and taught a two semester interdisciplinary course on the Philosophy of Mathematics, funded by a teaching scholarship from the university.

Current Teaching and Portfolio

I aim to emphasise inclusive and participatory concepts both in seminars and lectures. Three main guidelines of my corresponding approach to teaching are:

- Emphasis on student feedback and active participation
- Emphasis on project-based teaching and discovery-based learning (examples: together with students developing topically fitting “research questions” for term-long group projects, supervising their independent work/research over the course of the term).
- Emphasis on barrier-free interaction between lecturer and students (examples: active participation during courses, self-responsible study work by the students, etc.; introduction of “joint learning charter” conceptually aligning lecturer and students as partners in learning and learning-oriented research activities/projects).

At the Free University of Bozen-Bolzano I developed from the ground-up a new course ‘Introduction to Information Science’ for the Bachelor of Industrial and Mechanical Engineering, taught classes on Discrete Mathematics and Logics, and several more specialised seminars on Data Semantics, Knowledge Representation, Logic, and Applied Ontology.

My teaching experience can contribute to a number of Bachelor and Master programmes. My teaching interests include in particular a number of interdisciplinary topics which lend themselves well to student projects and interactive teaching methods.

Core interests and competencies in teaching are the following:

- **Basic Computer Science and Mathematics:** Discrete Mathematics; Algorithms; Computability; Management Engineering; Information Science.
- **Knowledge Representation and Reasoning:** KR languages, reasoning techniques, modularity, multi-dimensional representation, etc.
- **Logic and Formal Methods:** In particular non-classical logics, non-monotonic reasoning, abduction, description logic, modal logics, quantification, automated theorem proving, category theory, etc.
- **Applied Ontology & Semantic Web:** Ontological principles and modelling, applications, foundations of Semantic Web technologies, semantic repositories, etc.
- **AI and Cognitive Sciences:** Analogy and blending, computational models; Computational Creativity; Foundations of Concept Acquisition; Concept Invention.
- **AI and Philosophy:** Analytic Philosophy; Philosophy of Mathematics; Philosophy of AI; Philosophy of Cognitive Science.

Teaching Record

I have been teaching over the past 15 years in the Bachelor, Master, and PhD programs in several universities in the UK, in Germany, and in Italy. This spanned the departments of Mathematics, Computer Science, Cognitive Science, and Philosophy. I have also been teaching in several summer schools and advanced study programs over the years, across Europe, as well as in Australia, India, Lebanon, and South Africa.

Summer 23 Course at the ISAO summer school on Applied Ontology, Sherbrooke, Québec, Canada. <https://fois2023.griis.ca/isao-2023/>

Winter 2022/23 Lecturing at the Free University of Bozen-Bolzano: ‘Knowledge Representation’ (German), Bachelor in Computer Science.

Winter 2021/22 PhD Research Seminar ‘Logic, Knowledge and Cognition’ at the Free University of Bozen-Bolzano.

Winter 2021/22 Lecturing at the Free University of Bozen-Bolzano: ‘Discrete Mathematics’ (German), Bachelor in Computer Science.

Winter 2021 Commenced work with PhD student Gabriele Sacco newly enrolled in 2021 in the **unibz** PhD program.

Winter 2020/21 Lecturing at the Free University of Bozen-Bolzano: ‘Discrete Mathematics’ (German), Bachelor in Computer Science.

Winter 2019/20 Lecturing at the Free University of Bozen-Bolzano: ‘Computer Systems’ (Labs), Bachelor in Computer Science.

Winter 2019/20 PhD Research Seminar at the Free University of Bozen-Bolzano.

Winter 2019/20 Lecturing at the Free University of Bozen-Bolzano: ‘Mathematics I: Logic and Discrete Mathematics’, Bachelor in Computer Science.

Winter 2018 Commenced work with PhD student Guendalina Righetti newly enrolled in 2018 in the **unibz** PhD program.

April 2018 Maria Hedblom successfully defended her PhD at the University of Magdeburg with *Magna Cum Laude*.

Winter 2018/19 Lecturing at the Free University of Bozen-Bolzano: ‘Logic and Discrete Mathematics’, Bachelor in Computer Science.

Winter 2017/18 Lecturing at the Free University of Bozen-Bolzano: ‘Logic and Discrete Mathematics’, Bachelor in Computer Science.

Summer 2017 Lecturing at the Free University of Bozen-Bolzano: ‘Introduction to Management Engineering’, Bachelor in Computer Science.

Summer 2016 Lecturing at the Free University of Bozen-Bolzano: ‘Introduction to Information Science’, Bachelor in Industrial and Mechanical Engineering (Summer); ‘Logic and Discrete Mathematics’, ‘Seminars in Data Semantics’ (Winter).

- Winter 2015** Lecturing at the Free University of Bozen-Bolzano: ‘Logic and Discrete Mathematics’ (BA), ‘Seminars in Data and Knowledge Engineering’ (Master).
- 2014–16** Supervising 2 PhD students in Magdeburg (Madhura Thosar and Maria Hedblom); continued supervision of Maria Hedblom in Bolzano in 2015/16.
- Summer 2015** Lecturing at the Free University of Bozen-Bolzano: ‘Introduction to Information Science’, Bachelor in Industrial and Mechanical Engineering.
- 2014/15** Lecturing at the Department of Computer Science, Otto-von-Guericke University of Magdeburg: courses on ‘Applied Ontology’ and ‘Computational Creativity’ (Summer); advanced lecture on description logics and student research project (Winter).
- 2011/12** Lectures on ‘From Syllogism to Common Sense: A Tour through the Logical Landscape’ at University of Bremen (Philosophy/Computer Science/Mathematics Departments).
- 2011** President of the PhD Qualifying Examination Committee, January 2011. ICT Doctoral School, University of Trento (4 PhD students).
- 2010–12** Phd Supervision of Tzu-Keng Fu at University of Bremen; thesis title ‘Logical Pluralism and the Geography of Thought’, defended in July 2012.
- 2010** Recognition of “habilitationsäquivalente Leistungen als ‘Wissenschaftler in herausgehobener Position’”: general teaching and examination authority, University of Bremen.
- Since 2009** Lecturing (‘Lehrauftrag’) at the Departments of Computer Science, Philosophy & Linguistics, and Digital Media; courses on ‘Vagueness in Language and Logic’ and ‘Information Flow and the Logic of Distributed Systems’, amongst others.
- 2009** Compact course (‘Blockseminar’) on Heterogeneous Ontologies (Bremen/Münster).
- 2009** ESSLLI 2009 (*21st European Summer School in Logic, Language and Information, Bordeaux, July 20–31, 2009*) advanced course entitled ‘Ontologies: Structuring, Modularity, and Heterogeneity’ (with Stefano Borgo (Trento) and Till Mossakowski (Magdeburg)) (see <http://www.informatik.uni-bremen.de/~okutz/esslli09/>).
- 2003** Teaching Assistantship for ‘*Logic and Foundations of Computer Science*’, University of Liverpool: taught classes on set theory, logic, and elementary mathematics, and supervised exams.
- 2000–2002** Teaching Assistantship for ‘*Logics in Artificial Intelligence*’, University of Leipzig: taught classes on discrete mathematics, logic, and knowledge representation, and co-examined students at MA level.
- 1998** Designed and taught a *two semester interdisciplinary course* on the Philosophy of Mathematics, Humboldt University at Berlin. The course was addressing students from all departments, going through most of ‘modern’ philosophy of mathematics, ranging from Frege to a discussion of structuralism and fictionalism.
- 1997–1999** Teaching Assistant in the Department of Mathematics (Algebraic Geometry and Number Theory), Humboldt University at Berlin.

1995 Teaching Assistant ('Hilfswissenschaftler') in the Department of Philosophy (Analytic Philosophy & Philosophy of Mathematics), Ruhr-University of Bochum.

Invited Talks | International Lecturing | Outreach

- July 2023 ISAO 2023 Lecturer.** Invited Lecturer at the International School on Applied Ontology, colocated with FOIS 2023, July 10-14, 2023 University of Sherbrooke, Sherbrooke, Québec, Canada.
- August 2018 ESSLLI 2018 Lecturer.** Course on 'Logic, ontology and planning: the robot's knowledge' (with Stefano Borgo).
- February 2018 Invited Speaker.** International Symposium on Logic, Algebra and Category Theory (LAC 2018), Melbourne, Australia.
(See <http://www2.math.kyushu-u.ac.jp/~lac2018/>)
- October 2017 Invited Speaker.** International Conference on Computational Approaches to Diversity in Interaction and Meaning. An Interdisciplinary Conference Organised by the ESSENCE Network, 7th–9th October, 2017, San Servolo, Italy.
- September 2016 Invited Speaker.** *From Computational Creativity to Creativity Science.* An International Conference at the ZiF Centre for Interdisciplinary Research, 19–22 September 2016, Bielefeld, Germany.
- September 2016 LUNA 2016.** Participation in the Long Night of Science (LUNA 2016), presenting the outcomes of the COINVENT project concerning computational creativity research to the general public, 30 September 2016, Bozen-Bolzano.
- August 2016 ESSLLI 2016 Lecturer.** Course on 'The Distributed Ontology Language DOL' (with Till Mossakowski).
- June 2016 ISAO 2016.** 3rd Interdisciplinary School on Applied Ontology, Bozen-Bolzano, June 27 – July 1, 2016. General Chair and Coordinator of Scientific Program.
- April 2016 Invited tutorial** on 'Computational Analogy-Making, Concept Blending, and Related Forms of Non-Classical Reasoning' at the FIERCES ON BICA 2016: First International Early Research Career Enhancement School on Biologically Inspired Cognitive Architectures.
(See <http://easychair.org/smart-program/FIERCESONBICA2016/>)
- 2014 Invited Speaker.** Computational Creativity, Concept Invention, and General Intelligence, Workshop at ECAI 2014, 19th of August, 2014, Prague, Czech Republic.
- 2013 Invited Tutorial** on 'Connecting Logics', 4th World Congress and School on Universal Logic, Rio de Janeiro, Brazil, March 29–April 7, 2013.
(See <http://www.uni-log.org/start4.html>)
- 2012 Invited Speaker.** 3rd World Congress on the Square of Opposition, Beirut, Lebanon, June 26–29, 2012.
(See <http://www.square-of-opposition.org/start3.html>)

- 2012 Invited tutorial** on ‘ \mathcal{E} -Connections for Spatial Modelling’ at the 4th Indian School on Logic and its Applications, Manipal University, India, January 9–20, 2012.
(See <http://ali.cmi.ac.in/isla2012/>)
- 2011 Invited Speaker.** Symposium on Ontology between Philosophy and Computer Science (14th Congress of Logic, Methodology and Philosophy of Science, Nancy, July 19–26, 2011);
- 2011 Invited Speaker.** OASIS Symposium at ISWC 2011, Bonn, Germany.
- 2010 Invited Lecturer:** ESSLLI 2010 (*22nd European Summer School in Logic, Language and Information, Copenhagen, August 9–20, 2010*) advanced course entitled ‘Proof Complexity of Non-Classical Logics’ (with Olaf Beyersdorff, University of Leeds)
(See <http://www.informatik.uni-bremen.de/~okutz/esslli10/>)

3 Research | Scholarship

Research Profile

Oliver Kutz is a researcher in non-classical logics, knowledge representation, and ontologies. During his PhD and postdoc phase, he has made substantial and highly cited contributions to various topics in the area, and his work was essential to defining several research trends (detailed below). In the last few years, he has developed a strong interest in connecting ontology and logic-based research with cognition and computational creativity.

The PhD thesis of Oliver Kutz was concerned with logics for spatial reasoning and moreover devised a general combination technique for heterogeneous knowledge bases, called ‘E-connections’, particularly well-behaved computationally (the main reference ‘E-connections of Abstract Description Systems’ published in the *AIJ* has currently 315 citations on Google Scholar).

He then moved on to working with Ulrike Sattler and Ian Horrocks at the University of Manchester, co-designing the logic SROIQ underlying the Web Ontology Language OWL 2 DL (the corresponding KR paper has currently 1251 citations on Google Scholar) and investigated non-classical reasoning for ontologies such as abduction for DLs (the paper has 166 citations on Google Scholar).

At the University of Bremen, he worked primarily on spatial cognition, applied ontology, and heterogeneous KR. He was particularly co-chairing, since 2009, a major international effort to devise the DOL language, a meta-language to support multi-logic modelling for ontologies and formal specifications in general. DOL was formally adopted by the Object Management Group (OMG) in 2016 (the main reference is ‘Carnap, Goguen, and the Hyperontologies’, 96 citations on Google Scholar; a FOIS paper developing the basic semantics won the Best Paper Award in 2012 (55 citations on Google Scholar)). Between 2014–16, Kutz was a PI in the FP7 project COINVENT, developing the abstract logic and KR infrastructure for a cognitively motivated model of concept invention.

He is in particular applying logic and ontological modelling in diverse application areas, including in Spatial Reasoning, Cognitive Science, Natural Language Processing, Life Sciences & Chemistry, as well as Design & Computational Creativity.

Areas of Specialisation

Logic in Artificial Intelligence, in particular description logics, modal and other non-classical logics; logic combination techniques; reasoning methods.

Applied Ontology / Information Systems, in particular modularity and heterogeneity; algebraic specification techniques and institution theoretic semantics for ontologies and their applications.

Knowledge Representation, logic and ontologies in Spatial Reasoning, Design & Computational Creativity, Life Sciences, Natural Language Processing.

Symbolic Cognitive Modelling, in particular, image schemas, affordances, and related notions for concept invention and cognitive robotics.

Awards

I have received awards for teaching efforts (Berlin), my PhD thesis (UK Finalist 2005, British Computer Society BCS), experimental modelling work (DKR 2011), and Best Papers at FOIS 2012, K-CAP 2017, FOIS 2021, and at EPIA 2022. The FOIS and K-CAP Best Papers were also invited to the IJCAI best paper sister conference track.

- 2022 *EPIA Best Paper Award*. Best paper at the 21st EPIA Conference on Artificial Intelligence (EPIA 2022), Lisbon, Portugal, 2022. (with Roberto Confalonieri, Pietro Galliani, Daniele Porello, Guendalina Righetti, Nicolas Troquard).
- 2022 *IJCAI Best paper sister conferences track* (for FOIS 2021 paper).
- 2021 *FOIS Best Paper Award*. Best paper at the 12th International Conference on Formal Ontology in Information Systems (FOIS 2021), Bozen-Bolzano, Italy, 2021. (with Guendalina Righetti, Daniele Porello, Nicolas Troquard, Maria Hedblom, Pietro Galliani).¹
- 2018 *IJCAI Best paper sister conferences track* (for K-CAP 2017 paper).
- 2017 *K-CAP Best Paper Award*. Best paper at the 9th International Conference on Knowledge Capture, December 4th–6th, 2017, Austin, Texas (with C. Maria Keet).
- 2013 *IJCAI Best paper sister conferences track* (for FOIS 2012 paper).
- 2012 *FOIS Best Paper Award* Best paper at the 7th International Conference on Formal Ontology in Information Systems (FOIS 2012), Graz, Austria, 2012. (with Till Mossakowski and Christoph Lange).
- 2011 *2nd prize, Deep Knowledge Representation Challenge, DKR-11*, Banff, Alberta, Canada (with Janna Hastings and Till Mossakowski).
- 2005 *BCS/CPHC Distinguished Dissertations Award 2004/05* (Finalist).
- 1998 *Awarded special scholarship* from the Humboldt University at Berlin for the conception of a 2 semester interdisciplinary course on the Philosophy of Mathematics.

Summary of Current Research and Scholarship

Oliver Kutz is an Associate Professor in the KRDB Research Centre on Knowledge and Data of the Free University of Bozen-Bolzano, Italy.

He previously was a principal investigator at the University of Magdeburg, and held research positions in the SFB/TR 8 Research Center on Spatial Cognition at the University of Bremen (2007–2013), the ‘Information Management Group’ at the University of Manchester (2005–2006), the ‘Logic and Computation Group’ at the University of Liverpool (2003–04), and the ‘Intelligent Systems Department’ at the University of Leipzig (2000–2002), Germany. He obtained his PhD from the University of Liverpool in 2005, which gained him a

¹See <https://www.unibz.it/it/home/newsroom/news/a-computer-walks-into-a-cafe-disco>

BCS/CPHC Distinguished Dissertations Award (Finalist) of the British Computer Society in the 2004/5 competition.

He enjoyed extensive interdisciplinary training in Mathematics, Philosophy, as well as Cognitive & Computer Science, studying at the Universities of Bochum, Sussex, Berlin, Leipzig, and Liverpool.

Current Research. A major focus of his current work is on computational techniques for bridging the gap between the (embodied) cognitive sciences and formal-logical approaches to model core notions that are understood to be involved in human concept formation, such as image schemas and affordances. He particularly focuses on the role concepts play in ontology, ways of logically formalising concepts, and the problem of discovery of newly created concepts. This is a highly interdisciplinary research area, encompassing problems and techniques studied in logic, philosophy, linguistics, and cognitive and computer science.

Between 2014-16, he was PI in the COINVENT project, a high-profile international research project funded by the European Commission's 7th Framework Programme. It aimed at advancing the formal understanding of creativity by developing a computationally feasible, cognitively-inspired formal model of concept invention, drawing on interdisciplinary research results from logic, cognitive science, artificial intelligence, formal methods and computational creativity, and validating it for mathematical reasoning and melody harmonisation.

His responsibility within the COINVENT project was to provide a general formalisation of the Unified Concept Theory proposed by the late Joseph Goguen, to develop a logical framework for the highly influential idea of conceptual blending as introduced by Fauconnier and Turner in the 1990s, to advance the understanding and to study the heuristics of selecting 'good' concepts, and to build a collection of (common-sense) ontologies to help steer such selections, amongst other topics.

A number of important seed technologies that he has been working on over the past several years in Bremen and Magdeburg were part of this research endeavour, most importantly the Distributed Ontology Language DOL (ontoiop.org) and the Ontohub technology (ontohub.org), as well as his fundamental research into ontology languages, (concept) integration problems, interoperability, and techniques for structuring logical theories as well as for logic combination.

At UNIBZ he developed, as PI or co-PI, a number of follow-up projects to COINVENT, namely CIAO 'Concept Invention and Applied Ontology', LOGIS 'The Logic of Image Schemas', COCO 'Computational Technologies for Concept Invention', ONTORATOR 'Automated Ontology Generator', STELLA 'Spatio-temporal Logics for Cognitive Artificial Intelligence', KNOESI 'Knowledge from Embodied Simulation' and TREE4TREE 'Trees for Trees: Fast Algorithms for Temporal Ontologies applied to the Modelling of the Sustainable Forest'.

The targeted work is intended to advance the state-of-the-art of bridging logical foundations with cognitively-based AI. Recently, we also bridge the work on logical methods and applied ontology with modelling problems in the area of sustainability.

Core research questions that he currently addresses are the following:

- How can formal argumentation theory be combined with coherence theory and on-

tology debugging, in order to build a theory of concept evaluation that both reflects logical consistency aspects and softer social and background-knowledge based aspects?

- How can different logics of uncertainty and probability be combined into a single KR formalisms with transparent semantics and reasonable computational behaviour?
- How can we build formal but more cognitively-based general semantics for core notions of cognition, such as image schemas and affordances?
- How can formal logics reflecting core concepts from cognition, such as image schemas, be concretely applied to learning and reasoning tasks in, e.g., cognitive robotics?
- How can we bridge the symbolic/subsymbolic, respectively the learning/reasoning divide, with weighted perceptron logic?

Research Grants and Contracts

Research grants and contracts worth more than 5 million Euro; Managed as PI/co-PI budgets about 1 million Euro

- 2022** Project member of ‘STROKE’: Funding from the Italian “Ministero della Salute” (Direzione generale della ricerca e dell’innovazione in sanità) for the project “POS-T2-STROKE - Diagnosi e trattamento precoci dell’ictus mediante Unità Mobile Dedicata con Risonanza Magnetica (UMD-RM)”, 8 partners, 2,54 million Euro total, 213K for Bolzano.
- 2022** Funding from the Artificial Intelligence Journal, AIJ/IJCAI, for the 23th International Conference on Knowledge Management and Knowledge Engineering (EKAW 2022), held in Bolzano in September 2022, 2.5K.
- 2022** Funding from the Artificial Intelligence Journal, AIJ/IJCAI, for the 13th International Conference on Computational Creativity, held in Bolzano in June/July 2022. 3K.
- 2022** Funding from Adobe Research for the 13th International Conference on Computational Creativity, held in Bolzano in June/July 2022. 1K.
- 2022** Funding from EURAI for the 13th International Conference on Computational Creativity, held in Bolzano in June/July 2022. 1K.
- 2021** Funding from **unibz** for the 23th International Conference on Knowledge Management and Knowledge Engineering (EKAW 2022), held in Bolzano in September 2022, 6.5K.
- 2021** Funding from **unibz** for the 13th International Conference on Computational Creativity (ICCC 2022), held in Bolzano in June/July 2022, 6.5K.
- 2021–2023** PI, Tree4Tree project, CRC Call 2021, ‘Trees for Trees: Fast Algorithms for Temporal Ontologies applied to the Modelling of the Sustainable Forest’; 59K, Free University of Bozen-Bolzano.

- 2020–2023** Project Member, Project ‘Theory and Computation of Embodied Conceptualisation for Information Systems’ (CorporIS), led by IIIA-CSIC Barcelona (Marco Schorlemmer), with Aristotle University of Thessaloniki (Emilios Cambouropoulos), 30K.
- 2020/21** Funding from the Artificial Intelligence Journal, AIJ/IJCAI, for the Bolzano Summer of Knowledge, BOSK 20/21, held in Bolzano in September 2020 and in September 2021. 4K.
- 2019–23** co-PI, KNOESI project, CRC Call 2019, ‘Knowledge from Embodied Simulation’; 100K, Free University of Bozen-Bolzano.
- 2018–20** PI, SCORE project, DAAD-MIUR cooperation project, ‘From Image Schemas to Cognitive Robotics: A formal framework and computational models for embodied simulations’; 40K, Partner: University of Bremen, Germany.
- 2018–20** co-PI, STELLA project, CRC Call 2017, ‘Spatio-temporal Logics for Cognitive Artificial Intelligence’; 100K, Free University of Bozen-Bolzano.
- 2018–19** PI, ONTORATOR project, RTD Call 2018, ‘Automated Ontology Generator’; 10K, Free University of Bozen-Bolzano.
- 2017–19** co-PI, CREED project, RTD Call 2017, ‘Coherence and Explanation’; 10K, Free University of Bozen-Bolzano.
- 2016** Convenor, Creativity Science: Symposium at the ZiF Centre for Interdisciplinary Research, Bielefeld, Germany. Funding of 10K by the ZiF.
- 2016–18** PI, COCO project, CRC Call 2016, ‘Computational Technologies for Concept Invention’; 70K, Free University of Bozen-Bolzano.
- 2016/18** PI, RTD LOGIS project, ‘The Logic of Image Schemas’; 20K, Free University of Bozen-Bolzano.
- 2016** C3GI 2016 and Image Schema Day II, co-funded by **unibz**, 2.5k
- 2014–16** Principal Investigator: EU Collaborative Project COINVENT (‘Concept Invention Theory’) (ICT STREP, 7 partner institutions, 450K, 2.7 Million Euro total, started March 2014).
- 2015** PI, CIAO project ‘Concept Invention and Applied Ontology’; 10K, Free University of Bozen-Bolzano.
- 2013** PI, SpacePortal Project (awarded Euro 29723).
- 2013** Funding for Shapes 2.0: 15.000 R\$ awarded by CAPES – Coordination for the improvement of Higher-level Personnel; and 5.000 R\$ awarded by the National Council for Scientific and Technological Development (CNPq).
- 2012** PI, OntoHub/OntoIOp Project, SFB/TR 8 Funding (Euro 25473 awarded).
- 2011** SFB/TR 8 funding for WoMO 2011 and book publication (Ljubljana, Slovenia) as well as SHAPES 1.0 (Karlsruhe, Germany).
- 2010** SFB/TR 8 funding for the organisation of WoMO 2010 (Toronto, Canada) and book publication.

- 2010** Co-authored the I1-[OntoSpace] grant proposal for the third phase of the Research Center on Spatial Cognition SFB/TR 8 (named researcher) (2011–2014).
- 2002** Co-authored the grant proposal for the second phase of the DFG project ‘*Combination of Modal and Description Logics for the Representation of Intensional and Dynamical Knowledge*’ in which I worked as a (named) RA in Liverpool between 2003–2004.

Conference Chairing and Organisation Internationally

Program Chair, 36th International Workshop on Description Logics (DL 2023): Together with Ana Ozaki, co-chairing the program committee of DL 2023, held September 2–4, 2023, in Rhodes, Greece, in conjunction with the 20th International Conference on Principles of Knowledge Representation and Reasoning (KR 2023).

<https://dl2023.w.uib.no/organization/>

Program Chair, The 7th Image Schema Day (ISD 2023): Together with Maria M. Hedblom, co-chairing the program committee of ISD 2023, held together with the 20th International Conference on Principles of Knowledge Representation and Reasoning (KR 2023) in Rhodes, Greece, September 2023.

<https://imageschema.net>

Program Chair, 7th International Workshop on Cognition And Ontologies (CAOS 2023): Together with Guendalina Righetti, Stefano De Giorgis, Maria M. Hedblom, co-chairing the program committee of CAOS 2023, held at FOIS 2023, JOWO Episode IX, July 2023 - Sherbrooke, Québec, Canada

<https://caos.inf.unibz.it>

Program Chair, 7th International Workshop on Foundational Ontology (FOUST 2023): Together with Riccardo Baratella, Fumiaki Toyoshima, and Stefano Borgo, co-chairing the program committee of FOUST 2023, held at FOIS 2023, JOWO Episode IX, July 2023 - Sherbrooke, Québec, Canada

<https://foust.inf.unibz.it/foust7/>

General Chair, EKAW 2022 (with Nicolas Troquard): *23rd International Conference on Knowledge Engineering and Knowledge Management*, Bozen-Bolzano, Italy, September 2022.

<https://ekaw2022.inf.unibz.it>

General Chair, ICC 2022 (with Tony Veale): *13th International Conference on Computational Creativity, ICC'22*, Bozen-Bolzano, Italy, June 27–July 1, 2022.

<https://computationalcreativity.net/iccc22/>

General Chair, Summer of Knowledge 2020 and 2021: (Organised with Nicolas Troquard) A co-location of several knowledge-focused conferences, including the *11th International Conference on Formal Ontology in Information Systems* and the *22nd International Conference on Knowledge Engineering and Knowledge Management*, Bozen-Bolzano, Italy, 2020.

General Chair, EKAW 2020: *22nd International Conference on Knowledge Engineering and Knowledge Management*, Bozen-Bolzano, Italy, September 2020.

Local Chair, FOIS-2020: *11th International Conference on Formal Ontology in Information Systems*, Bozen-Bolzano, Italy, 2020.

General Chair, FOIS-2018: *10th International Conference on Formal Ontology in Information Systems*, Cape Town, South Africa, September 2018.

Co-Organiser of JOWO workshops CAOS-CEX 2018 ('Cognition and Ontologies + CEX') and BOG ('Bad Ontologies') 2018, to be held at FOIS 2018. <http://www.iaoa.org/jowo2018/>

Co-Organiser of ISD4 – The 4th Image Schema Day, to be held at the Free University of Bozen-Bolzano, Italy. <http://isd.inf.unibz.it>

Co-Organiser of cex 2017 – Workshop on Comprehensibility and Explanation in AI and ML, to be held at AIXIA 2017, University of Bari, Italy, November, 2017. <https://cex.inf.unibz.it>

Co-Organiser of C3GI 2017 - 6th International Workshop on Computational Creativity, Concept Invention, and General Intelligence. Complutense University of Madrid, Spain, December 15, 2017. <https://c3gi.inf.unibz.it>

Co-Organiser of SHAPES 4.0 - The Shape of Things, to be held at JOWO 2017, Free University of Bozen-Bolzano, September 21-23, 2017, Bozen-Bolzano, Italy. <http://shapes.inf.unibz.it>

Co-Organiser of ISD3 - The 3rd Image Schema Day, to be held at JOWO 2017, Free University of Bozen-Bolzano, September 21-23, 2017, Bozen-Bolzano, Italy. <http://isd.inf.unibz.it>

Co-Organiser of FOUST II - The 2nd Workshop on Foundational Ontology, to be held at JOWO 2017, Free University of Bozen-Bolzano, September 21-23, 2017, Bozen-Bolzano, Italy. <https://foust.inf.unibz.it>

Local and General Chair, JOWO-2017: *3rd Joint Ontology Workshops*, Free University of Bozen-Bolzano, September 21–23, 2017.

Co-Organiser of FOUST - The Foundational Stance, held at Free University of Bozen-Bolzano, February 27–28, 2017, Bozen-Bolzano, Italy. <https://foust.inf.unibz.it>

Co-Organiser of the Second International Workshop on Cognition And Ontologies (CAOS-17), held at AISB 2017, April 18–21, 2017, Bath, UK.

Convenor: *From Computational Creativity to Creativity Science*. An International Conference at the ZiF Centre for Interdisciplinary Research, 19–22 September 2016, Bielefeld, Germany. Keynotes by: Mark Turner, Razvan Diaconescu, Luciano Serafini, David Cope, and François Pachet.

General Chair, ISAO 2016: 3rd Interdisciplinary School on Applied Ontology, Bozen-Bolzano, June 27–July 1, 2016.

Co-Organiser of the 5th Computational Creativity, Concept Invention, and General Intelligence (C3GI 2016), collocated with ESSLLI 2016, August 20–22, 2016, Bozen-Bolzano, Italy.

Co-Organiser of the *Image Schema Day: Vol II*, August 22, Bolzano, Italy. Invited talks by Tim Fernando (Dublin), John Bateman (Bremen), Stefano Borgo (Trento), and Brian Magerko (Georgia Tech).

General Chair of JOWO, the Joint Ontology Workshops 2016, and **Workshop Chair of FOIS-16**, held at the 9th International Conference on Formal Ontology in Information Systems (FOIS 2016) held in Annecy, France, between July 6–9, 2016.

Organiser of the International Workshop ‘New Standards for the Working Ontologist: Common Logic and DOL’ (NSWO-16), held at JOWO-16, Annecy, France, as part of FOIS 2016.

Organiser of the First International Workshop on Cognition And Ontologies (CAOS-16), held at JOWO-16, Annecy, France, as part of FOIS 2016.

Organiser and PC Chair of SHAPES 3.0 – The Shape of Things, held in conjunction with the Ninth International and Interdisciplinary Conference on Modeling and Using Context, CONTEXT 2015, Larnaca, Cyprus, 2–6 November 2015.

Co-Organiser of the *Image Schema Day: Vol I*, October 2, Bolzano, Italy. Invited talks by John Bateman (Bremen), Nicola Guarino (Trento), and Tony Veale (Dublin).

Organiser and PC Chair of the 1st workshop on Formal Ontologies for Artificial Intelligence, FOFAI 2015, held at IJCAI 2015 in Buenos Aires. FOFAI was a participant in the Joint Ontology Workshops – JOWO 2015.

PC chair, FOIS-2014 (*8th International Conference on Formal Ontology in Information Systems*), Rio de Janeiro, Brazil, 2014.

Co-chair and Advisory Committee for the **2014 Ontology Summit on Big Data and Semantic Web Meets Applied Ontology** (Track G).²

Co-organiser, SQUARE IV – 4th World Congress on the Square of Opposition, Pontifical Lateran University, Vatican City, Rome, Italy, May 5–9, 2014.³

Co-organiser (PC chair), SHAPES 2.0, co-located with the 4th World Congress and School on Universal Logic, Rio de Janeiro, Brazil, March 29–April 7, 2013⁴

Co-organiser (PC chair), SHAPES 1.0 (*The Shape of Things*, co-located with Context-2011, Karlsruhe, Germany, September 27, 2011.⁵

Co-organiser (PC chair), WoMO-11 (*5th International Workshop on Modular Ontologies*, co-located with ESSLLI-2011, Ljubljana, Slovenia, August 1–12, 2011.)⁶

Co-organiser (PC chair), WoMO-10 (*4th International Workshop on Modular Ontologies*), held in Toronto, Canada, May 11, 2010. Co-located with the 6th International Conference on Formal Ontology in Information Systems, FOIS 2010.

Co-organiser of **WoMO-06**, *First International Workshop on Modular Ontologies*, co-located with the International Semantic Web Conference (ISWC-06), Athens, Georgia, November 2006.

²website: <http://ontolog.cim3.net/cgi-bin/wiki.pl?OntologySummit2014>

³website: <http://www.square-of-opposition.org/start4.html>

⁴website: <http://cindy.informatik.uni-bremen.de/cosy/events/shapes2/>

⁵website: <http://www.sfbtr8.spatial-cognition.de/cosy/Events/shapes/>

⁶website: <http://www.informatik.uni-bremen.de/~okutz/womo5/>

Programme Committee Memberships

KR 2023 20th International Conference on Principles of Knowledge Representation and Reasoning, KR 2023, Rhodes, Greece, September 2–8, 2023.

ISWC 2023 The 22nd International Semantic Web Conference (Doctoral Consortium), Athens, Greece, November 2023.

ICCC 2023 Senior PC member. 14th International Conference on Computational Creativity, June 19–June 23, 2023, University of Waterloo in Ontario, Canada.

FOIS 2023 12th International Conference on Formal Ontology in Information Systems, July 17–20, 2023 (Sherbrooke, QC, Canada) and Sept 18–20, 2023 (Online) (See <https://fois2023.griis.ca/>)

KR-2022 19th International Conference on Principles of Knowledge Representation and Reasoning, KR 2022, July 31–August 5, 2022, Haifa, Israel.

IJCAI-ECAL-2022 The 31st International Joint Conference on Artificial Intelligence and the 25th European Conference on Artificial Intelligence, Vienna, Austria, July 23-29, 2022.

MK 2022 1st International Workshop on ‘Modular Knowledge’, held at ESWC 2022, Heronissos, Greece, May 29, 2022. (See <https://mk2022.fbkc.eu>)

ICCC 2021 Senior PC member. 12th International Conference on Computational Creativity. Held online September 14–18, 2021.

FOIS 2021 12th International Conference on Formal Ontology in Information Systems, held at the Bolzano Summer of Knowledge 2.0, September 13–17, 2021. (See <https://fois2021.inf.unibz.it>)

DL 2021 34th International Workshop on Description Logics, September 19–22, 2021, Bratislava, Slovakia.

KR 2021 18th International Conference on Principles of Knowledge Representation and Reasoning, November 3–12, 2021 (online event).

FOIS 2020 11th International Conference on Formal Ontology in Information Systems.

IJCAI-PRICAI-2020 International Joint Conference on Artificial Intelligence, Pacific Rim International Conference on Artificial Intelligence. January 7–15, 2021, Yokohama, Japan.

Auto-RobOntics Workshop on ‘Ontologies for Autonomous Robotics’, held online at JOWO 2020.

ICCC 2020 PC Member & Workshop Chair 11th International Conference on Computational Creativity. Held online September 7–11, 2020.

DL 2020 33rd International Workshop on Description Logics, September 12–14, 2020, Rhodes, Greece.

AGI 2020 13th Conference on Artificial General Intelligence, June 22–26, 2020. (online event)

ECAI 2020 24th European Conference on Artificial Intelligence, August 29– September 8. (online event)

WOMoCoE-19 4th International Workshop on Ontology Modularity, Contextuality, and Evolution, co-located with JOWO 2019, September, Graz, Austria.

AIC-19 7th International Workshop on “AI and Cognition” (AIC 2019) September 10–11, 2019, Manchester, UK.

ICCC-19 Tenth International Conference on Computational Creativity, Charlotte, NC, USA, June 17–21, 2019.

AAAI-19. 33rd AAI Conference on Artificial Intelligence, to be held January 27–February 1, 2019, Honolulu, Hawaii, USA.

DL-19 32nd International Workshop on Description Logics, 18–21 June 2019, Oslo, Norway.

IJCAI-ECAI-18. 27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence, Stockholm, Sweden, July 13–19, 2018.

ICCC-18 Ninth International Conference on Computational Creativity, June 25–29, 2018 in Salamanca, Spain.

WOMoCoE-18 3rd International Workshop on Ontology Modularity, Contextuality, and Evolution, co-located with KR 2018, October 29, 2018, Tempe, Arizona, USA.

KRNL-18 Workshop on Knowledge Representation in Natural Language, co-located with KR 2018, October 28, 2018, Tempe, Arizona, USA.

DL-18 31st International Workshop on Description Logics, co-located with KR 2018, 26–29 October 2018, Tempe, Arizona.

ECS@FOIS-18 Early Career Symposium at FOIS 2018, Cape Town, South Africa, September 2018.

ICCC-17. The Eighth International Conference on Computational Creativity, June 19–June 23, 2017, Atlanta, Georgia, USA.

ISD3. The 3rd Image Schema Day, co-located with the 3rd Joint Ontology Workshops (JOWO 2017), Free University of Bozen-Bolzano, Italy, September 21–23, 2017.

SHAPES 4.0. SHAPES 4.0: The Shape of Things. Workshop co-located with the 3rd Joint Ontology Workshops (JOWO 2017) taking place at the Free University of Bozen-Bolzano, Italy, September 21–23, 2017.

FOUST II. FOUST II: 2nd Workshop on Foundational Ontology. Co-located with the 3rd Joint Ontology Workshops (JOWO 2017) taking place at the Free University of Bozen-Bolzano, Italy, September 21–23, 2017.

K-CAP 2017. Ninth International Conference on Knowledge Capture, December 4th–6th, 2017, Austin, Texas, United States.

DL-17. 30th International Workshop on Description Logics, 18–21 July 2017, Montpellier, France.

KESW 2017. International Conference on Knowledge Engineering and Semantic Web (KESW 2017), 8–10 November 2017, Szczecin, Poland.

VORTE 2017. 9th International Workshop on Vocabularies, Ontologies and Rules for the Enterprise, VORTE 2017, will be co-located with the 21th IEEE International EDOC

Conference – The Enterprise Computing Conference, 10th-13th October, 2017, Québec-City, Canada.

AGI-16. 9th International Conference on Artificial General Intelligence (AGI-2014), 16–19 August, 2016, New York City, USA.

FOIS-16. 9th International Conference on Formal Ontology in Information Systems (FOIS 2016) held in Annecy, France, between July 6–9, 2016.

KR-16. 15th International Conference on Principles of Knowledge Representation and Reasoning, April 25–29, 2016, Cape Town, South Africa.

LRCM-16. Second Workshop on Logics and Reasoning for Conceptual Models (LRCM 2016), April 21, 2016, Cape Town.

DL-16. 29th International Workshop on Description Logics, 22–25 April 2016, Cape Town, South Africa.

ESWC-16. 13th International Conference, ESWC 2016, May 29–June 2, 2016, Heraklion, Crete, Greece.

AIC-15. 3rd International Workshop on Artificial Intelligence and Cognition (AIC-2015).

AIDE-15. 1st Workshop on Artificial Intelligence & Design (AIDE-2015), September 22nd, 2015, Ferrara, Italy, and co-located with the 14th Conference of the Italian Association for Artificial Intelligence (AI*IA 2015).

IWOOD-15. 3rd International Workshop on Definitions in Ontologies (IWOOD 2015), held in conjunction with the 6th International Conference on Biomedical Ontologies (ICBO 2015), July 27–30, 2015, Lisbon, Portugal.

C3GI-15. The 4th edition of Computational Creativity, Concept Invention, and General Intelligence (C3GI-2015), collocated with the 5th World Congress and School on Universal Logic (UNILOG), June 25–26, 2015, Istanbul, Turkey.

DL-15. 28th International Workshop on Description Logics, 7–10 June 2015, Athens, Greece.

ESWC-15. The 12th Extended Semantic Web Conference (ESWC 2015), 31st May–4th June, 2015, Portoroz, Slovenia.

CiE-15. 11th Computability in Europe conference, Bucharest, Romania, 29 June–3 July 2015.

AIC-14. 2nd International Workshop on Artificial Intelligence and Cognition, Torino, Italy, November 26th–27th, 2014.

ECAI-14. 21st European Conference on Artificial Intelligence, Prag, Czech Republic, 18–22 August 2014.

ODLS-14. Workshop on Ontologies and Data in Life Sciences, Freiburg i.Br., Germany, October, 2014.

C3GI-14 Computational Creativity, Concept Invention, and General Intelligence, Workshop at ECAI 2014.

AGI-14. 7th International Conference on Artificial General Intelligence, Quebec City, Canada, August 1–4, 2014.

- AIMSA-14.** 16th International Conference on Artificial Intelligence: Methodology, Systems, Applications, Varna, Bulgaria, September, 2014.
- IJCAI-13.** 23rd International Joint Conference on Artificial Intelligence, Beijing, China, August 3–9, 2013.
- LRCM-13.** First Workshop on Logics and Reasoning for Conceptual Models, LRCM-13, December 14, 2013, Stellenbosch, South Africa.
- ARCOE-LogIC-13.** The 5th International Workshop on Acquisition, Representation and Reasoning with Contextualized Knowledge, September, 2013, Corunna, Spain, co-located with LPNMR 2013.
- ODLS-13.** Workshop on Ontologies and Data in Life Sciences, Koblenz, Germany, September, 2013.
- AGI-13.** 6th International Conference on Artificial General Intelligence, Beijing, China, July 31–August 3, 2013.
- Formal MAGiC.** Formalizing Mechanisms for Artificial General Intelligence and Cognition, held at IJCAI 2013. Beijing, China.
- AAAI-13.** Twenty-Seventh AAAI Conference on Artificial Intelligence, held in Bellevue, Washington USA July 14–18, 2013.
- C3GI-13** Computational Creativity, Concept Invention, and General Intelligence, Workshop at IJCAI 2013.
- ECAI-12.** 20th European Conference on Artificial Intelligence, Montpellier, France, August 27–31, 2012.
- ARCOE-12.** The 4th International Workshop on Acquisition, Representation and Reasoning with Contextualized Knowledge, August 27–28, 2012, Montpellier, France, co-located with ECAI 2012.
- AIMSA-12.** 15th International Conference on Artificial Intelligence: Methodology, Systems, Applications, Varna, Bulgaria, September 13–15, 2012.
- STAIRS-12.** 6th Starting Artificial Intelligence Research Symposium, held in Montpellier, France, August 27–28, 2012, co-located with ECAI 2012.
- ESWC-12.** 9th Extended Semantic Web Conference, May 27–31, 2012, Heraklion, Greece.
- KI-2012.** 35th Annual German Conference on Artificial Intelligence (Poster and Demo track), Saarbrücken, Germany, September 24–27, 2012.
- ISWC-11.** 10th International Semantic Web Conference, Bonn, Germany, October 23–27, 2011.
- OCAS-11.** Workshop and Grand Challenge: Ontologies come of Age in the Semantic Web, co-located with the The 10th International Semantic Web Conference (ISWC-11), October 23–27, 2011, Bonn, Germany.
- IJCAI-11.** 22nd International Joint Conference on Artificial Intelligence, Barcelona, Catalonia (Spain), July 16–22, 2011.
- NLPCS-11.** 8th International Workshop on Natural Language Processing and Cognitive Science, Special Issue: Human-Machine Interaction in Translation, August 20–21, 2011,

Copenhagen, Denmark.

CTUW-11. Special Session on Cognitive-based Text Understanding and Web Wisdom, held at the 10th IEEE International Conference on Cognitive Informatics & Cognitive Computing (ICCI*CC 2011), University of Calgary, Canada, August 18–20, 2011.

IICAI-11. 5th Indian International Conference on Artificial Intelligence, Tumkur, India, December 14–16, 2011.

STAIRS-10. 5th European Starting AI Researcher Symposium, held at ECAI, Lisbon, August 2010.

KR-10. Twelfth International Conference on the Principles of Knowledge Representation and Reasoning, held in Toronto, Canada, May 9–13, 2010.

ECAI-10. 19th European Conference on Artificial Intelligence, held in Lisbon, Portugal, August 16–20, 2010.

AAAI-10. Twenty-Fourth AAAI Conference on Artificial Intelligence, held at the Westin Peachtree Plaza in Atlanta, Georgia, USA, July 11–15, 2010.

NLPCS-10. 7th International Workshop on Natural Language Processing and Cognitive Science, held in Funchal, Madeira, Portugal, May 8–9, 2010.

OWLED-09. 6th OWL: Experiences and Directions, co-located with ISWC-2009 and held in Washington DC, October 2009.

IICAI-09. 4th Indian International Conference on Artificial Intelligence, held in Tumkur, India, December 16–18, 2009.

DL-09. 22nd International Workshop on Description Logics, held in Oxford, United Kingdom, July 27–30, 2009.

IJCAI-09. 21st International Joint Conference on Artificial Intelligence, held in Pasadena, California, July 11–17, 2009.

NLPCS-09. The 6th International Workshop on Natural Language Processing and Cognitive Science, held in Milan, Italy, May 6–7, 2009.

AIMSA-08. 13th International Conference on Artificial Intelligence: Methodology, Systems, Applications, held in Varna, Bulgaria, September 4–6, 2008.

WORM-08. International Workshop on Ontologies: Reasoning and Modularity, held in conjunction with the ESWC-08, European Semantic Web Conference, Tenerife, Spain, June 2008.

WoMO-07. Second International Workshop on Modular Ontologies, held in conjunction with the Conference on Knowledge Capture, K-CAP-07, Whistler BC, Canada, October 28, 2007.

OnE-07. Workshop on Ontology Evolution, held in conjunction with the 10th International Conference on Business Information Systems, BIS 2007, Poznan, Poland, April 25–27, 2007.

Peer Reviewer (in addition to PC memberships)

Journals Review of Symbolic Logic (**JSL**), Journal of Symbolic Logic (**JSL**), Semantic Web Journal (**SWJ**), Journal of Data Semantics (**JODS**), Journal of Logic and Computation (**JLC**), Journal of Philosophical Logic (**JPL**), Journal of Artificial Intelligence Research (**JAIR**), Journal of Biomedical Semantics (**JBMS**), Studia Logica (**SL**), Applied Ontology (**AOJ**), Journal of Data & Knowledge Engineering (**DKE**), Logic Journal of the Interest Group in Pure and Applied Logics (**IGPL**), Journal of Applied Non-Classical Logics (**JANCL**), Bulletin of The Section of Logic (**BSL**), amongst others.

Conferences Logic in Computer Science (**CSL**), Conference on Principles of Knowledge Representation and Reasoning (**KR**), Methods for Modalities (**M4M**), European Conference on Artificial Intelligence (**ECAI**), Conference on Logic for Programming Artificial Intelligence and Reasoning (**LPAR**), Algebraic Methodology and Software Technology (**AMAST**), Frontiers of Combining Systems (**FroCos**), International Conference on Artificial Intelligence: Methodology, Systems, Applications (**AIMSA**), International Workshop on Description Logics (**DL**), Conference on Analytic Tableaux and Related Methods (**TABLEAUX**), Conference on Automated Deduction (**CADE**), Advances in Modal Logic (**AiML**), amongst others.

4 Publications

Six High-Impact Publications

I briefly summarise six representative research publications with significant impact.

(I) On the Theory of Logic Combination

E-Connections of Abstract Description Systems.

O. Kutz, C. Lutz, F. Wolter, and M. Zakharyashev.

Artificial Intelligence, 156(1):1–73, 2004.

E-connections (a technique that I introduced in my PhD thesis) are a logic combination technique in which one can build (global) knowledge bases by connecting local ones written in a variety of logics, using various kinds of ‘bridge formulae’. The intuitive semantics and robustness of the method regarding decidability preservation have made it a popular choice for heterogeneous, distributed modelling problems, in particular concerning different logics of time and space. E-connections have also been heavily used and implemented as a partitioning technique for web ontologies, and are a central theme in the ongoing Workshops on Modular Ontologies (WoMO).

(This paper has **322 citations** on Google Scholar, May 2023.)

(II) On the Logic for the Semantic Web

The Even More Irresistible SROIQ.

I. Horrocks, O. Kutz, and U. Sattler.

Proc. of the 10th Conference on Principles of Knowledge Representation and Reasoning (KR-06). Morgan Kaufmann, 2006.

Extending earlier work on expressive description logics (DLs), this paper pushed the expressive limits further adding features that were particularly requested by practitioners, without yielding undecidability or breaking basic implementation features of tableaux-based methods. The logic SROIQ here defined was adopted as the logical core of the Web Ontology Language OWL 2 DL, and is now a W3C recommendation. The logic SROIQ is now the baseline for research on expressive DLs.

(This paper has **1287 citations** on Google Scholar, May 2023.)

(III) On Heterogeneous Knowledge Representation

Carnap, Goguen, and the Hyperontologies: Logical Pluralism and Heterogeneous Structuring in Ontology Design.

O. Kutz, T. Mossakowski, and D. Luecke.

Logica Universalis, Special Issue on ‘Is Logic Universal?’, Volume 4, Number 2, 255–333, 2010.

We here summarise several years of work on structuring, modularisation, and combination problems in the area of ontology engineering and formal modelling in heterogeneous logical environments, with Goguen and Burstall’s theory of institutions as the central theoretical backbone; this paper provides the general theoretical framework for the design of the Distributed Ontology, Modeling and Specification language

DOL, which was adopted formally by the Object Management Group OMG as an international standard in 2016.

(This paper has **98 citations** on Google Scholar, May 2023.)

(IV) On Consistency

A Modular Consistency Proof for Dolce.

O. Kutz and T. Mossakowski.

In *Proc. of Twenty-Fifth Conference on Artificial Intelligence (AAAI-11)*, held in San Francisco, California, August 7–11, AAAI Press, 2011.

Proving the consistency of large first-order theories (assuming they are not entirely trivial) using e.g. model finders was out of the scope for cutting edge theorem proving systems, and this holds still true in 2018 as a recent re-assessment of the results of this paper showed. We here develop a methodology to describe the structure of models of a complex FOL theory, and to break down the global consistency proof into a series of relative consistency proofs and amalgamability conditions. The proposed methodology is at the heart of the FOUST project, which intends to build a digital library and consistency proofs for all major foundational ontologies. A Special Issue for the FOUST project appears in *Applied Ontology* in 2022.

<http://foust.inf.unibz.it>

(This paper has **40 citations** on Google Scholar, May 2023.)

(V) On Computational Creativity

A Computational Framework for Concept Blending.

M. Eppe, E. Maclean, R. Confalonieri, O. Kutz, M. Schorlemmer, E. Plaza, K.-U. Kühnberger. *Artificial Intelligence*, Volume 256, March 2018, 105–129, Elsevier, 2018.

This paper summarises and presents the core computational approaches developed during the EU FP7 FET Open project COINVENT ‘Concept Invention Theory’, which are based on an abstract category theoretic model (initially envisaged by Joseph Goguen) of the highly influential theory of Conceptual Blending, developed itself within cognitive linguistics in the 1990s, primarily by Fauconnier and Turner. This paper accompanies the book length study ‘Concept invention: Foundations, implementation, social aspects and applications’ that came out in 2018 at Springer.

<https://www.coinvent.uni-osnabrueck.de>

(This paper has **91 citations** on Google Scholar, May 2023.)

(VI) On Abduction for Ontologies

A Case for Abductive Reasoning over Ontologies.

C. Elsenbroich, O. Kutz, U. Sattler.

OWL Experiences and Directions, CEUR, Vol-216, 2006.

This paper set out the basic definitions for abductive reasoning with or over ontologies, e.g. distinguishing ABox and TBox abduction. It applied therefore insights from abductive reasoning as it was developed in philosophy of science and general logic to ontology engineering and methodology, thereby laying the groundwork for further development in the field.

(This paper has **175 citations** on Google Scholar, May 2023.)

Further Selected Publications

- **Succinctness and Complexity of *ACC* with Counting Perceptrons.**
Pietro Galliani, Oliver Kutz, Nicolas Troquard.
20th International Conference on Principles of Knowledge Representation and Reasoning (KR 2023) in Rhodes, Greece, September 2023.
- **Foundational Ontologies in Action: Understanding foundational ontology through examples.**
S. Borgo, A. Galton, and O. Kutz. *Applied Ontology*, Volume 17, Issue 1, Special Issue, IOS Press, 2022.
- **Asymmetric hybrids: Dialogues for computational concept combination.**
Guendalina Righetti, Daniele Porello, Nicolas Troquard, Oliver Kutz, Maria M. Hedblom, Pietro Galliani
Proceedings of Formal Ontology in Information Systems (FOIS 2021), IOS Press, 2022.
FOIS Best Paper
- **Blending under Deconstruction. The roles of logic, ontology, and cognition in computational concept invention.**
Roberto Confalonieri, Oliver Kutz
Annals of Mathematics and Artificial Intelligence (AMAI), 88(5–6): 479–516, Springer, 2020.
- **Image Schema Combinations and Complex Events.**
Maria M. Hedblom, Oliver Kutz, Rafael Peñaloza, Giancarlo Guizzardi
Künstliche Intelligenz (KI), Springer, 2019.
- **Orchestrating a Network of Mereo(topo)logical Theories**
C. Maria Keet and Oliver Kutz. In *K-CAP 2017 Knowledge Capture*, December 4th–6th, Austin, Texas, United States, 2017. **K-CAP 2017 Best Paper Award**
- **Image schemas in computational conceptual blending.**
M. M. Hedblom, O. Kutz, F. Neuhaus. *Cognitive Systems Research*, 39: 42–57, 2016.
- **E pluribus unum—Formalisation, Use-Cases, and Computational Support for Conceptual Blending.**
O. Kutz, J. Bateman, T. Mossakowski, F. Neuhaus, and M. Bhatt. In T. R. Besold et al., editors, *Computational Creativity Research: Towards Creative Machines*, Atlantis/Springer, Thinking Machines, 2015.
- **A categorical approach to networks of aligned ontologies.**
M. Codescu, T. Mossakowski, O. Kutz.
Journal on Data Semantics (JODS), Springer, 2017. https://link.springer.com/article/10.1007/s13740-017-0080-0?wt_mc=Internal.Event.1.SEM.ArticleAuthorOnlineFirst
(Online first)
- **Three Semantics for the Core of the Distributed Ontology Language.**
T. Mossakowski, C. Lange, and O. Kutz. In *Proc. of the 7th International Conference on Formal Ontology in Information Systems (FOIS 2012)*, Graz, Austria, 2012.
(FOIS Best Paper Award; also presented at IJCAI-13 Best Paper Track)

- **Ontological Modelling of Form and Function in Architectural Design.**
M. Bhatt, J. Hois, and O. Kutz. *Applied Ontology*, 7(3): 233–267, 2012.
- **Conservativity in Structured Ontologies.**
O. Kutz and T. Mossakowski. *18th European Conference on Artificial Intelligence (ECAI-08)*, Patras, Greece, 2008.
- **Counterparts in Language and Space—Similarity and S-Connection.**
J. Hois and O. Kutz. *5th International Conference on Formal Ontology in Information Systems (FOIS-08)*, Saarbrücken, Germany,
- **Notes on Logics of Metric Spaces.**
O. Kutz. *Studia Logica*, 85(1): 75–104, 2007.
- **Logically Possible Worlds and Counterpart Semantics for Modal Logic.**
M. Kracht and O. Kutz. In Dale Jacquette, editor, *Handbook of the Philosophy of Logic*, volume 5 of *Handbook of the Philosophy of Science*, pages 963–1018. Elsevier, 2007.
- **Logics of metric spaces.**
O. Kutz, H. Sturm, N.-Y. Suzuki, F. Wolter, and M. Zakharyashev. *ACM Transactions on Computational Logic (TOCL)*, 4(2):260–294, 2003.

Complete Publication List

Theses

- **\mathcal{E} -Connections and Logics of Distance.**
O. Kutz. *PhD thesis*, The University of Liverpool, 2005.
- **Kripke-Typ Semantiken für die modale Prädikatenlogik.**
O. Kutz. *Diplom in Mathematik*, Fachbereich Mathematik, Humboldt-Universität zu Berlin, 2000.

Book Chapters

- **Image Schemas and Concept Invention.**
M. M. Hedblom, O. Kutz, and F. Neuhaus. In Confalonieri, R., Pease, A., Schorlemmer, M., Besold, T., Kutz, O., Maclean, E., Kaliakatsos-Papakostas, M. (Eds.). *Concept Invention: Foundations, Implementation, Social Aspects and Applications*, Computational Synthesis and Creative Systems, Springer, 2018.
- **Conceptual Blending in DOL: Evaluating Consistency and Conflict Resolution.**
M. Codescu, F. Neuhaus, T. Mossakowski, O. Kutz, and Danny de Jesús Gómez-Ramírez. In Confalonieri, R., Pease, A., Schorlemmer, M., Besold, T., Kutz, O., Maclean, E., Kaliakatsos-Papakostas, M. (Eds.). *Concept Invention: Foundations, Implementation, Social Aspects and Applications*, Computational Synthesis and Creative Systems, Springer, 2018.
- **E pluribus unum—Formalisation, Use-Cases, and Computational Support for Conceptual Blending.**
O. Kutz, J. Bateman, T. Mossakowski, F. Neuhaus, and M. Bhatt. In T. R. Besold et al., editors, *Computational Creativity Research: Towards Creative Machines*, Atlantis/Springer, Thinking Machines, 2015.
- **Proof Complexity of Non-Classical Logics.**
O. Beyersdorff and O. Kutz.
Chapter based on ESSLLI-2010 course material, Association for Logic, Language and Information (FoLLI), Springer, 2012. www.informatik.uni-bremen.de/~okutz/proofcomplexity.pdf
- **Logically Possible Worlds and Counterpart Semantics for Modal Logic.**
M. Kracht and O. Kutz. In Dale Jacquette, editor, *Handbook of the Philosophy of Logic*, volume 5 of *Handbook of the Philosophy of Science*, pages 963–1018. Elsevier, 2007.
- **The Semantics of Modal Predicate Logic II. Modal Individuals Revisited.**
M. Kracht and O. Kutz. In Reinhard Kahle, editor, *Intensionality*, volume 22 of *ASL Lecture Notes in Logic*, pages 60–97. A. K. Peters, Los Angeles, 2005.
- **New Semantics for Modal Predicate Logics.**
O. Kutz. In Benedikt Löwe, Wolfgang Malzkorn, and Thoralf Räscher, editors, *Foundations of the Formal Sciences II: Applications of Mathematical Logic in Philosophy and Linguistics*, Springer, 2005.

tics, volume 17 of *Trends in Logic*, pages 151–162, Dordrecht, Boston, London, 2003. Kluwer Academic Publishers.

Edited Books | Conference Volumes | Journal Special Issues

- **Proc. of EKAW 2022.**
Oscar Corcho, Laura Hollink, Oliver Kutz, Nicolas Troquard, Fajar J. Ekaputra (eds). *Proceedings of the 23rd International Conference on Knowledge Engineering and Knowledge Management*. Bolzano, Italy, September 26–29, 2022. Springer, 2022.
<https://link.springer.com/book/10.1007/978-3-031-17105-5>
- **Proc. of ICC2022.**
Maria M. Hedblom, Anna Aurora Kantosalo, Roberto Confalonieri, Oliver Kutz, Tony Veale (eds). *Proceedings of the 13th International Conference on Computational Creativity*. Bolzano, Italy, June 27–July 1, 2022. Association of Computational Creativity (ACC), 2022.
https://computationalcreativity.net/iccc22/wp-content/uploads/2022/08/ICCC22_proceedings.pdf
- **The Role of Ontologies and Knowledge in Explainable AI.**
R. Confalonieri, O. Kutz, D. Calvanese, J. M. Alonso, S.-M. Zhou (editors) *Semantic Web Journal*, Forthcoming, Special Issue, IOS Press, 2022.
- **FOUST–The Foundational Stance.**
S. Borgo and O. Kutz (editors) *Applied Ontology*, Volume 17, Issue 1, Special Issue, IOS Press, 2022.
<https://content.iospress.com/journals/applied-ontology/17/1>
- **Formal Ontology in Information Systems, Proceedings of the Tenth International Conference (FOIS 2018).**
S. Borgo, P. Hitzler and O. Kutz (eds). Cape Town, South Africa, September 17–21, 2018. *Frontiers in Artificial Intelligence and Applications*, Volume 306, IOS Press, 2018.
<https://www.iospress.nl/book/formal-ontology-in-information-systems-9/>
- **Concept Invention: Foundations, Implementation, Social Aspects and Applications.**
R. Confalonieri, A. Pease, M. Schorlemmer, T. Besold, O. Kutz, E. Maclean, M. Kaliakatsos (eds.). *Computational Synthesis and Creative Systems*, Springer, 2018.
<https://www.springer.com/de/book/9783319656014>
- **Formal Ontology in Information Systems, Proceedings of the Eighth International Conference (FOIS 2014).**
P. Garbacz and O. Kutz (eds). Rio de Janeiro, Brazil, September 22–26, 2014. *Frontiers in Artificial Intelligence and Applications*, Vol. 267, IOS Press, 2014.
- **Modular Ontologies.**
O. Kutz and J. Hois (editors)

Applied Ontology, Volume 7, Issue 2, Special Issue, 2012.

<https://content.iospress.com/journals/applied-ontology/7/2>

- **Modular Ontologies—Proc. of the Fifth International Workshop (WoMO 2011).**
O. Kutz and T. Schneider (editors).
Frontiers in Artificial Intelligence and Applications, Volume 230, IOS Press, 2011.
<https://www.iospress.nl/book/modular-ontologies-2/>
- **Modular Ontologies—Proc. of the Fourth International Workshop (WoMO 2010)**
O. Kutz, J. Hois, J. Bao, and B. Cuenca Grau (editors).
Vol. 210 of *Frontiers in Artificial Intelligence and Applications*, IOS Press, 2010.
<https://www.iospress.nl/book/modular-ontologies/>

Proceedings Editor (online)

- **Proc. of DL 2023.**
Proceedings of the 36th International Workshops on Description Logic (DL 2023)
Held in Rhodes, Greece from September 2-4, collocated with the 20th International Conference on Principles of Knowledge Representation and Reasoning (KR 2023) and the 21st International Workshop on Non-Monotonic Reasoning (NMR 2023).
CEUR-WS, 2023.
- **Proc. of JOWO 2023.**
Proceedings of the Joint Ontology Workshops 2023 (JOWO 2023), Episode 9: The Quebec Summer of Ontology
Held in conjunction with the 13th International Conference on Formal Ontology in Information Systems (FOIS 2023) in Sherbrooke, Québec, Canada (July 17-20, 2023).
CEUR-WS, IAOA Series, 2023.
- **Proc. of EKAW-C 2022.**
Danai Symeonidou, Ran Yu, Davide Ceolin, María Poveda, Davide Audrito, Luigi Di Caro, Francesca Grasso, Roberto Nai, Emilio Sulis, Fajar J. Ekaputra, Oliver Kutz, Nicolas Troquard.
Companion Proceedings of the 23rd International Conference on Knowledge Engineering and Knowledge Management (EKAW-C 2022)
Free University of Bozen-Bolzano, Bolzano, Italy, 26–29 September, 2022.
CEUR-WS, IAOA Series, 2022.
<http://ceur-ws.org/Vol-3256/>
- **Proc. of JOWO 2022.**
Tiago Prince Sales, Maria M. Hedblom, He Tan, Guendalina Righetti, Oliver Kutz, Martin Glauer, Janna Hastings, Till Mossakowski, Fabian Neuhaus, Lucía Gómez Álvarez, Rafael Peñaloza, Srdjan Vesic, Claudenir Morais Fonseca, Jona Thai, Stefano Borgo, Damion Dooley, Rhiannon Cameron, Lauren Chan, Duccio Cavalieri, Robert Warren, Hande McGinty, Matthew Lange, Fernanda Forea, Francesco Vitali, Bart Gajderowicz, Daniela Rosu, Aldo Gangemi, Robert Porzel, Daniel Beßler, Mihai Pomarlan, Mohammed Diab, Alberto Olivares-Alarcos.
Proceedings of the Joint Ontology Workshops 2022 (JOWO 2022), Episode 8: The Swear

Sommar of Ontology

Jönköping University, Jönköping, Sweden, 15–19 August 2022.

CEUR-WS, IAOA Series, 2022.

<http://ceur-ws.org/Vol-3249/>

- **Proc. of CAOS 2022.**
Guendalina Righetti, Maria Hedblom, Oliver Kutz (eds).
Proceedings of the 6th International Workshop on Cognition and Ontologies (CAOS 2022).
CEUR-WS, IAOA Series, 2022. (As part of JOWO 2022)
- **Proc. of FOUST 2022.**
Claudenir M. Fonseca, Jona Thai, Stefano Borgo, Oliver Kutz (eds).
Proceedings of the 6th International Workshop on Foundational Ontology (FOUST 2022).
CEUR-WS, IAOA Series, 2022. (As part of JOWO 2022)
- **Proc. of ISD 2022.**
Maria Hedblom and Oliver Kutz (eds).
Proceedings of the 6th Image Schema Day (ISD 2021). Jönköping University, Sweden,
March 24–25, 2022.
CEUR-WS, IAOA Series, 2022. <http://ceur-ws.org/Vol-3140/>
- **Proc. of DAO-XAI 2021.**
Roberto Confalonieri, Oliver Kutz, Diego Calvanese (eds).
Proceedings of the Workshop on Data meets Applied Ontologies in Explainable AI (DAO-XAI 2021).
Bratislava, Slovakia, September 18–19, 2021.
CEUR-WS, Vol-2998, IAOA Series, 2021.
<http://ceur-ws.org/Vol-2998/>
- **Proc. of JOWO 2021.**
Emilio M. Sanfilippo, Oliver Kutz, Nicolas Troquard, Torsten Hahmann, Claudio Masolo, Robert Hoehndorf, Randi Vita, Maria M. Hedblom, Guendalina Righetti, Dušan Šormaz, Walter Terkaj, Tiago Prince Sales, Sergio de Cesare, Frederik Gailly, Giancarlo Guizzardi, Mark Lycett, Chris Partridge, Oscar Pastor, Daniel Beßler, Stefano Borgo, Mohammed Diab, Aldo Gangemi, Alberto Olivares-Alarcos, Mihai Pomarlan, Robert Porzel, Ludger Jansen, Mathias Brochhausen, Daniele Porello, Pawel Garbacz, Selja Seppälä, Michael Grüninger, Robert Hoehndorf, Amanda Vizedom, Damion Dooley, Robert Warren, Hande Küçük McGinty, Matthew Lange, Alsayed Algergawy, Naouel Karam, Friederike Klan, Franck Michel, Ilaria Rosati (eds).
Proceedings of the Joint Ontology Workshops 2021 (JOWO 2021), Episode 7: The Bolzano Summer of Knowledge 2.0.
Virtual and Bozen-Bolzano, Italy, September 11–18, 2021.
CEUR-WS, Vol-2969, IAOA Series, 2021.
<http://ceur-ws.org/Vol-2969/>
- **Proc. of ICC-WS 2020.**
Oliver Kutz, H. Sofia Pinto (eds).
Proceedings of the Joint Workshops of the International Conference on Computational Creativity.
Co-located with the 11th International Conference on Computational Creativity (ICCC 2020), Coimbra & Virtual, Portugal, September 7–11, 2020.
CEUR-WS, Vol-2827, 2020.
<http://ceur-ws.org/Vol-2827/>

- **Proc. of JOWO 2020.**
Karl Hammar, Oliver Kutz, Anastasia Dimou, Torsten Hahmann, Robert Hoehndorf, Claudio Masolo, Randi Vita, Sarra Ben Abbès, Philippe Calvez, Rim Hantach, Tiago Prince Sales, Daniele Porello, Daniel Beßler, Stefano Borgo, Mohammed Diab, Aldo Gangemi, Alberto Olivares-Alarcos, Mihai Pomarlan, Robert Porzel, Martin G. Skjæveland, Daniel P. Lupp, Ian Horrocks, Johan W. Klüwer, Christian Kindermann, Loris Bozzato, Till Mossakowski, Luciano Serafini (eds).
Proceedings of the Joint Ontology Workshops 2020 (JOWO 2020), Episode 6: The Bolzano Summer of Knowledge.
Virtual and Bozen-Bolzano, Italy, August 31st to October 7th, 2020.
CEUR-WS, Vol-2708, IAOA Series, 2019.
<http://ceur-ws.org/Vol-2708/>
- **Proc. of JOWO 2019.**
Adrien Barton, Selja Seppälä, Daniele Porello, Oliver Kutz et al. (eds).
Proceedings of the Joint Ontology Workshops 2019, Episode 5: The Styrian Autumn of Ontology.
Graz, Austria, September 23-25, 2019
CEUR-WS, Vol-2518, IAOA Series, 2019.
<http://ceur-ws.org/Vol-2518/>
- **Proc. of TriCoLore 2018: Creativity - Cognition - Computation.**
Oliver Kutz, Maria M. Hedblom, Tarek R. Besold, Roberto Confalonieri, Carlos León, Tony Veale, John Bateman (eds).
Joint Proceedings of the Workshops C3GI: The 7th International Workshop on Computational Creativity, Concept Invention, and General Intelligence; ISD4: The 4th Image Schema Day; and SCORE: From Image Schemas to Cognitive Robotics, Bozen-Bolzano, Italy, December 13–15, 2018.
CEUR, Volume 2347, 2019.
<http://ceur-ws.org/Vol-2347/>
- **Proc. of Bad Ontologies (BOG 2018).**
Giancarlo Guizzardi, Oliver Kutz, Rafael Peñaloza, Nicolas Troquard.
Part of the Proceedings of the Joint Ontology Workshops 2018, Episode IV: The South African Spring, co-located with the 10th International Conference on Formal Ontology in Information Systems (FOIS 2018), Cape Town, South Africa, September 17–18, 2018.
CEUR, Volume 2205, 2018.
<http://ceur-ws.org/Vol-2205/>
- **Proc. of Cognition and Ontologies (CAOS 2018).**
Maria M. Hedblom, Tarek Besold, Oliver Kutz.
Part of the Proceedings of the Joint Ontology Workshops 2018, Episode IV: The South African Spring, co-located with the 10th International Conference on Formal Ontology in Information Systems (FOIS 2018), Cape Town, South Africa, September 17–18, 2018.
CEUR, Volume 2205, 2018.
<http://ceur-ws.org/Vol-2205/>
- **Proc. of C3GI 2017.**
Computational Creativity, Concept Invention, and General Intelligence
Carlos Leon, Oliver Kutz, Tarek R. Besold.
Madrid, Spain, December 15, 2017.

CEUR, Volume 2160, 2018.

<http://ceur-ws.org/Vol-2160/>

- **Proc. of JOWO 2017.**
Stefano Borgo, Oliver Kutz, Frank Loebe, Fabian Neuhaus, et al. (eds).
Proceedings of the Joint Ontology Workshops 2017, Episode 3: The Tyrolean Autumn of Ontology, Free University of Bozen-Bolzano, September 21–23, 2017.
CEUR, Volume 2050, 2018.
- **Proc. of C3GI 2016.**
Computational Creativity, Concept Invention, and General Intelligence
Tarek R. Besold, Oliver Kutz, Carlos Leon.
Free University of Bozen-Bolzano, co-located with ESSLLI-16.
<http://ceur-ws.org/Vol-1767/>
- **Proc. of JOWO 2016.**
Oliver Kutz and Sergio de Cesare (eds).
Proceedings of the Joint Ontology Workshops 2016, Episode 2: The French Summer of Ontology, co-located with the 9th International Conference on Formal Ontology in Information Systems (FOIS 2016)
<http://ceur-ws.org/Vol-1660/>
- **Proc. of CAOS 2016.**
First International Workshop on Cognition And OntologieS (CAOS-16), held at JOWO-16, Annecy, France, as part of FOIS 2016.
<http://ceur-ws.org/Vol-1660/>
- **Proc. of Shapes 3.0—The Shape of Things.**
O. Kutz, S. Borgo, M. Bhatt, (eds).
CEUR-WS, co-located with CONTEXT-15, Larnaca, Cyprus, November 2, 2015.
<http://ceur-ws.org/Vol-1616/>
- **Proc. of JOWO 2015.**
(Episode 1: The Argentine Winter of Ontology, co-located with the 24th International Joint Conference on Artificial Intelligence (IJCAI 2015)).
<http://ceur-ws.org/Vol-1517/>
- **Proc. of FOFAI 2015.**
(Formal Ontologies for Artificial Intelligence). *CEUR-WS*, co-located with IJCAI-15, part of JOWO 15
<http://ceur-ws.org/Vol-1517/>
- **Proc. of Shapes 2.0—The Shape of Things.**
O. Kutz, M. Bhatt, S. Borgo, and P. Santos (eds).
CEUR-WS, Workshop at UNILOG-13, Rio de Janeiro, Brazil, April 2013.
<http://ceur-ws.org/Vol-1007/>
- **Proc. of Shapes 1.0—The Shape of Things.**
J. Hastings, O. Kutz, M. Bhatt, and S. Borgo (eds).
CEUR-WS, Workshop collocated with CONTEXT-11, Karlsruhe, Germany, September 2011.

- **Proc. of the First International Workshop on Modular Ontologies (WoMO 2006).**
Haase, V. Honavar, O. Kutz, Y. Sure, and A. Tamilin (editors).
WoMO-06, International Semantic Web Conference (ISWC-06), November 5, 2006, Athens, Georgia, USA. *CEUR-WS* Vol. 232, 2007.

Journals

- **Computational Concept Combination: A Logical Approach with Cognitive Heuristics** Guendalina Righetti, Nicolas Troquard, Oliver Kutz, Pietro Galliani, Daniele Porello, Maria M. Hedblom Under Review, 2023.
- **Foundational Ontologies in Action: Understanding foundational ontology through examples.**
S. Borgo, A. Galton, and O. Kutz. *Applied Ontology*, Volume 17, Issue 1, Special Issue, IOS Press, 2022.
- **Blending under Deconstruction. The roles of logic, ontology, and cognition in computational concept invention.**
Roberto Confalonieri, Oliver Kutz
Annals of Mathematics and Artificial Intelligence (AMAI), 88(5–6): 479–516, Springer, 2020.
- **Image Schema Combinations and Complex Events.**
Maria M. Hedblom, Oliver Kutz, Rafael Peñaloza, Giancarlo Guizzardi
Künstliche Intelligenz (KI), Springer, 2019.
- **A Computational Framework for Concept Blending.**
Manfred Eppe, Ewen Maclean, Roberto Confalonieri, Oliver Kutz, Marco Schorlemmer, Enric Plaza, Kai-Uwe Kühnberger
Artificial Intelligence, Volume 256, March 2018, 105–129, Elsevier, 2018.
<https://doi.org/10.1016/j.artint.2017.11.005>
- **A categorical approach to networks of aligned ontologies.**
M. Codescu, T. Mossakowski, O. Kutz.
Journal on Data Semantics (JODS), Springer, 2017.
https://link.springer.com/article/10.1007/s13740-017-0080-0?wt_mc=Internal.Event.1.SEM.ArticleAuthorOnlineFirst (Online first)
- **Ontohub: A semantic repository for heterogeneous ontologies.**
M. Codescu, E. Kuksa, O. Kutz, T. Mossakowski, and F. Neuhaus.
Journal of Applied Ontology, vol. 12, no. 3–4, pp. 275–298, IOS Press, 2017.
<https://content.iospress.com/articles/applied-ontology/ao190?resultNumber=3&totalResults=9&start=0&q=ontohub&resultsPageSize=10&rows=10>
- **A narrative in three acts: Using combinations of image schemas to model events.**
T. R. Besold, M. M. Hedblom, O. Kutz.
Biologically Inspired Cognitive Architectures (BICA), Elsevier, 2017.
- **Upward Refinement Operators for Conceptual Blending in the Description Logic \mathcal{EL}^{++} .**

- R. Confalonieri, M. Eppe, M. Schorlemmer, O. Kutz, R. Peñaloza, E. Plaza.
Annals of Mathematics and Artificial Intelligence (AMAI), Volume 82, Issue 1–3, pp 69–99, 2018.
- **Image schemas in computational conceptual blending.**
M. M. Hedblom, O. Kutz, F. Neuhaus.
Cognitive Systems Research, 39: 42–57, Elsevier, 2016.
 - **Choosing the Right Path: Image Schema Theory as a Foundation for Concept Invention.**
M. M. Hedblom, O. Kutz, F. Neuhaus.
Journal of Artificial General Intelligence (JAGI), 6(1): 22–54, 2015.
 - **Semantic Web and Big Data meets Applied Ontology: The Ontology Summit 2014.**
L. Obrst, M. Grüninger, K. Baclawski, M. Bennett, D. Brickley, G. Berg-Cross, P. Hitzler, K. Janowicz, C. Kapp, O. Kutz, C. Lange, A. Levenchuk, F. Quattri, A. Rector, T. Schneider, S. Spero, A. Thessen, M. Vegetti, A. Vizedom, A. Westerinen, M. West, P. Yim
Journal of Applied Ontology, 9(2): 155–170, 2014.
 - **Modularity in ontologies.**
O. Kutz and J. Hois (Introduction)
Journal of Applied Ontology, 7(2): 109–112, 2012.
 - **Open Biomedical Pluralism: Formalising Knowledge about Breast Cancer Phenotypes.**
A. Sojic and O. Kutz.
Journal of Biomedical Semantics, 3(Suppl 2):S3, 2012.
 - **Ontological Modelling of Form and Function in Architectural Design.**
M. Bhatt, J. Hois, and O. Kutz.
Journal of Applied Ontology, 7(3): 233–267, 2012.
 - **Carnap, Goguen, and the Hyperontologies—Logical Pluralism and Heterogeneous Structuring in Ontology Design.**
O. Kutz, T. Mossakowski, and D. Luecke.
Logica Universalis, Special Issue on ‘Is Logic Universal?’, Volume 4, Number 2, 255–333, 2010.
 - **Notes on Logics of Metric Spaces.**
O. Kutz.
Studia Logica, 85(1): 75–104, 2007.
 - **\mathcal{E} -Connections of Abstract Description Systems.**
O. Kutz, C. Lutz, F. Wolter, and M. Zakharyashev.
Artificial Intelligence, 156(1):1–73, 2004.
 - **Logics of metric spaces.**
O. Kutz, H. Sturm, N.-Y. Suzuki, F. Wolter, and M. Zakharyashev.
ACM Transactions on Computational Logic (TOCL), 4(2):260–294, 2003.

- **Axiomatizing distance logics.**
O. Kutz, H. Sturm, N.-Y. Suzuki, F. Wolter, and M. Zakharyashev.
Journal of Applied Non-Classical Logic, 12:425–440, 2002.

Peer Reviewed International Conferences

- **Succinctness and Complexity of \mathcal{ALC} with Counting Perceptrons.**
Pietro Galliani, Oliver Kutz, Nicolas Troquard.
20th International Conference on Principles of Knowledge Representation and Reasoning (KR 2023) in Rhodes, Greece, September 2023.
- **Almost certain termination for ALC weakening.**
Roberto Confalonieri, Pietro Galliani, Oliver Kutz, Daniele Porello, Guendalina Righetti and Nicolas Troquard
21st EPIA Conference on Artificial Intelligence, Volume 13566, Lecture Notes in Computer Science, 2022.
EPIA Best Paper Award
- **Asymmetric hybrids: Dialogues for computational concept combination: Extended Abstract.**
Guendalina Righetti, Daniele Porello, Nicolas Troquard, Oliver Kutz, Maria M. Hedblom, Pietro Galliani
Proceedings of the 31st International Joint Conference on Artificial Intelligence (IJCAI 2022), Best Paper Sister Conference Track, 2022.
- **A Game of Essence and Serendipity: Superb Owls vs. Cooking-Woodpeckers.**
Guendalina Righetti, Oliver Kutz, Daniele Porello and Nicolas Troquard.
Proceedings of the Thirteenth International Conference on Computational Creativity (ICCC 2022), 2022.
- **Asymmetric hybrids: Dialogues for computational concept combination.**
Guendalina Righetti, Daniele Porello, Nicolas Troquard, Oliver Kutz, Maria M. Hedblom, Pietro Galliani.
Proceedings of Formal Ontology in Information Systems (FOIS 2021), IOS Press, 2022.
FOIS Best Paper Award
- **Deciphering The Cookie Monster: A case study in impossible combinations.**
Maria Hedblom, Guendalina Righetti, Oliver Kutz.
Proceedings of the Twelfth International Conference on Computational Creativity (ICCC 2021), 2021.
- **Perceptron Connectives in Knowledge Representation.**
Pietro Galliani, Guendalina Righetti, Oliver Kutz, Daniele Porello, Nicolas Troquard.
In *Proceedings of 22nd International Conference on Knowledge Engineering and Knowledge Management (EKAW 2020)*, Springer, 2020.
- **Conceptual Puzzle Pieces.**
Maria M. Hedblom and Oliver Kutz
In *Modeling and Using Context. CONTEXT 2019*, Bella G., Bouquet P. (eds)
Lecture Notes in Computer Science, vol 11939. Springer, Cham, 2019.

- **Weighted Description Logic for Classification Problems.**
Guendalina Righetti, Pietro Galliani, Oliver Kutz, Daniele Porello, Claudio Masolo, and Nicolas Troquard.
In *Proc. of the 5th Global Conference on Artificial Intelligence (GCAI 2019)*, 17–19 September 2019, Bolzano, Italy, 2019.
- **On Knowledge Dependence in Weighted Description Logic.**
Pietro Galliani, Oliver Kutz, Daniele Porello, Guendalina Righetti, and Nicolas Troquard.
In *Proc. of the 5th Global Conference on Artificial Intelligence (GCAI 2019)*, 17–19 September 2019, Bolzano, Italy, 2019.
- **A Roadmap Towards Tuneable Random Ontology Generation Via Probabilistic Generative Models.**
P. Galliani, O. Kutz, R. Confalonieri In *10th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management (KEOD 2018)*, Seville Spain, 18–20 September 2018.
- **The Mouse and the Ball: Towards a cognitively-based and ontologically-grounded logic of agency.**
Oliver Kutz, Nicolas Troquard, Maria M. Hedblom and Daniele Porello.
In *Proc. of the Tenth International Conference on Formal Ontology in Information Systems (FOIS 2018)*, Cape Town, South Africa, September 17–21, 2018.
- **Under the Super-Suit: What Superheroes Can Reveal About Inherited Properties in Conceptual Blending.**
Maria M. Hedblom, Rafael Peñaloza, Giancarlo Guizzardi, Oliver Kutz.
In *Proc. of the Ninth International Conference on Computational Creativity (ICCC 2018)*, Salamanca, Spain, June 25–29, 2018.
- **Two Approaches to Ontology Aggregation Based on Axiom Weakening.**
Daniele Porello, Nicolas Troquard, Rafael Peñaloza, Roberto Confalonieri, Pietro Galliani, Oliver Kutz
Proceedings of the 27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence. (IJCAI-ECAI 2018), July 13–19, Stockholm, Sweden, 2018.
- **Orchestrating a Network of Mereotopological Theories: An Abridged Report.**
C. Maria Keet and Oliver Kutz.
In *IJCAI 2018 Sister Conferences Track*, Proceedings of the 27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence. (IJCAI-ECAI 2018), July 13–19, Stockholm, Sweden, 2018.
- **In, Out and Through: Formalising some dynamic aspects of the image schema Containment.**
Maria M. Hedblom, Dagmar Gromann, Oliver Kutz.
In *33rd ACM/SIGAPP Symposium On Applied Computing (SAC-18), KRR track*, Pau, France, April 9–13, 2018.

- **Repairing Ontologies via Axiom Weakening.**
 Nicolas Troquard, Roberto Confalonieri, Pietro Galliani, Rafael Peñaloza, Daniele Porello, Oliver Kutz.
 In *Thirty-Second AAAI Conference on Artificial Intelligence (AAAI-18)*, New Orleans, Louisiana, USA, February 2–7, 2018.
<https://aaai.org/ocs/index.php/AAAI/AAAI18/paper/view/17189>
- **Orchestrating a Network of Mereo(topo)logical Theories.**
 C. Maria Keet and Oliver Kutz.
 In *K-CAP 2017 Knowledge Capture*, December 4th-6th, Austin, Texas, United States, 2017.
K-CAP 2017 Best Paper Award
- **Between Contact and Support: Introducing a logic for image schemas and directed movement.**
 Maria M. Hedblom, Oliver Kutz, Till Mossakowski and Fabian Neuhaus.
 In *16th International Conference of the Italian Association for Artificial Intelligence (AI*IA 2017)*, 14–17 November, Bari, Italy, Springer, 2017.
- **Repairing Socially Aggregated Ontologies Using Axiom Weakening.**
 Daniele Porello, Nicolas Troquard, Roberto Confalonieri, Pietro Galliani, Oliver Kutz and Rafael Peñaloza.
 In *The 20th International Conference on Principles and Practice of Multi-Agent Systems (PRIMA 2017)*, Oct. 30 – Nov. 3, Nice, France, Springer, 2017.
- **ASP, Amalgamation, and the Conceptual Blending Workflow.**
 M. Eppel, E. Maclean, O. Kutz, R. Confalonieri, M. Schorlemmer, E. Plaza.
 In *13th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR)*, 2015.
- **Concept invention and music: Creating novel harmonies via conceptual blending.**
 E. Cambouropoulos, M. Kaliakatsos-Papakostas, K.-U. Kuehnberger, O. Kutz, and A. Smaill. In *Proc. of the 9th Int. Conference on Interdisciplinary Musicology (CIM 2014)*, Berlin, December 2014.
- **Blending in the Hub - Towards a collaborative concept invention platform.**
 O. Kutz, T. Mossakowski, F. Neuhaus, and M. Codescu. In *Proc. of the 5th International Conference on Computational Creativity (ICCC 2014)*, June 10–13, Ljubljana, Slovenia, 2014.
- **COINVENT: Towards a Computational Concept Invention Theory.**
 M. Schorlemmer, A. Smaill, K.-U. Kühnberger, O. Kutz, S. Colton, E. Cambouropoulos, A. Pease. In *Proc. of the 5th International Conference on Computational Creativity (ICCC 2014)*, June 10–13, Ljubljana, Slovenia, 2014.
- **Space for Space—SpacePortal: the 21st Century Home for Spatial Ontologies.**
 J. Bateman, O. Kutz, T. Mossakowski, A. Sojic, and M. Codescu. In *Proc. of the 6th International Conference on Spatial Cognition*, Bremen, Germany, 15–19 September, Springer, 2014. (Short paper)

- **Three Semantics for the Core of the Distributed Ontology Language (Extended Abstract).**
T. Mossakowski, C. Lange, and O. Kutz. In *Proc. of the 23th International Joint Conference on Artificial Intelligence (IJCAI 2013)*, Beijing, China, 2013.
(Sister Conferences Track)
- **Semantics of the Distributed Ontology Language: Institutes and Institutions.**
T. Mossakowski, O. Kutz, and C. Lange. In *Proc. of the 21st International Workshop on Algebraic Development (WADT 2012)*, Salamanca, Spain, June 7–10, 2012. LNCS, Springer, 2013.
- **Three Semantics for the Core of the Distributed Ontology Language.**
T. Mossakowski, C. Lange, and O. Kutz. In *Proc. of the 7th International Conference on Formal Ontology in Information Systems (FOIS 2012)*, Graz, Austria, 2012.
(FOIS Best Paper Award)
- **Modelling Highly Symmetrical Molecules: Linking Ontologies and Graphs.**
O. Kutz, J. Hastings, and T. Mossakowski. In *Proc. of the 15th International Conference on Artificial Intelligence: Methodology, Systems, Applications (AIMSA 2012)*, Varna, Bulgaria, September 12th–15th, LNCS, Springer, 2012.
- **Generalized Quantifiers and Ontological Commitments.**
I. Stojanovic and O. Kutz. In *Proc. of the International Interdisciplinary Conference on Philosophy, Mathematics, Linguistics: Aspects of Interaction (PhML 2012)*, May 22–25, 2012, St. Petersburg, Russia, 2012.
- **The Distributed Ontology Language (DOL): Ontology Integration and Interoperability Applied to Mathematical Formalization.**
C. Lange, O. Kutz, T. Mossakowski, and M. Grüninger. In *Proc. of the Conference on Intelligent Computer Mathematics (CICM 2012)*, 9–14 July 2012, Jacobs University, Bremen, Germany.
- **The Analysis and Synthesis of Logic Translation.**
T.-K. Fu and O. Kutz. In *Proc. of the 25th Florida Artificial Intelligence Research Society Conference (FLAIRS-25)*, Marco Island, Florida, USA, 2012.
- **The Distributed Ontology Language (DOL): Use Cases, Syntax, and Semantics.**
C. Galinski, O. Kutz, C. Lange, and T. Mossakowski. In *Proc. of the 10th Terminology and Knowledge Engineering Conference (TKE 2012)*, Madrid, Spain, 2012.
- **A Modular Consistency Proof for Dolce.**
O. Kutz and T. Mossakowski. In *Proc. of Twenty-Fifth Conference on Artificial Intelligence (AAAI-11)*, held in San Francisco, California, August 7–11, AAAI Press, 2011.
- **OSMonto - An Ontology of OpenStreetMap Tags.**
M. Codescu, G. Horsinka, O. Kutz, T. Mossakowski, R. Rau. In *Proc. of State of the Map, Europe (SOTM-EU)*, Vienna, 2011.

- **Towards a Standard for Heterogeneous Ontology Integration and Interoperability.**
O. Kutz, T. Mossakowski, C. Galinski, and C. Lange. In *Proc. of the International Conference on Terminology, Languages and Content Resources (LaRC-11)*, Seoul, South Korea, 2011.
- **DO-ROAM: Activity-Oriented Search and Navigation with OpenStreetMap.**
M. Codescu, G. Horsinka, O. Kutz, T. Mossakowski, R. Rau. In *Proc. of the Fourth International Conference on GeoSpatial Semantics, GeoS-11*, Christophe Claramunt, Michela Bertolotto, Sergei Levashkin (Eds.), LNCS. Springer, 2011.
- **Modelling Functional Requirements in Spatial Design.**
M. Bhatt, J. Hois, O. Kutz, F. Dylla. In *Proc. of the 29th International Conference on Conceptual Modeling (ER-2010)*, Vancouver, BC, Canada, November 2010.
- **Towards Ontological Blending.**
J. Hois, O. Kutz, T. Mossakowski, and J. Bateman. In *Proc. of the The 14th International Conference on Artificial Intelligence: Methodology, Systems, Applications (AIMSA-2010)*, Varna, Bulgaria, September 8th–10th, 2010.
- **Counterparts in Language and Space—Similarity and S-Connection.**
J. Hois and O. Kutz. *5th International Conference on Formal Ontology in Information Systems (FOIS-08)*, Saarbrücken, Germany, 2008. IOS Press.
- **Natural Language meets Spatial Calculi.**
J. Hois and O. Kutz. *Spatial Cognition VI. Learning, Reasoning, and Talking about Space*. 6th International Conference on Spatial Cognition, Freiburg, Germany, September 15–19, 2008. Lecture Notes in Computer Science, Vol. 5248, Springer, 2008.
- **Conservativity in Structured Ontologies.**
O. Kutz and T. Mossakowski. *18th European Conference on Artificial Intelligence (ECAI-08)*, Patras, Greece. 2008.
- **A Case for Abductive Reasoning over Ontologies.**
C. Elsenbroich, O. Kutz, and U. Sattler. In *Proc. of OWL: Experiences and Directions (OWLED-06)*, Athens, Georgia, USA, November 10th–11th, 2006.
- **The Even More Irresistible SROIQ.**
I. Horrocks, O. Kutz, and U. Sattler. In *Proc. of the 10th Conference on Principles of Knowledge Representation and Reasoning (KR-06)*. Morgan Kaufmann, 2006.
- **Connecting abstract description systems.**
O. Kutz, F. Wolter, and M. Zakharyashev. In *Proc. of the 8th Conference on Principles of Knowledge Representation and Reasoning (KR 2002)*, pages 215–226. Morgan Kaufmann, 2002.
- **The Semantics of Modal Predicate Logic I. Counterpart-Frames.**
M. Kracht and O. Kutz. In Frank Wolter, Heinrich Wansing, Maarten de Rijke, and Michael Zakharyashev, editors, *Advances in Modal Logic. Volume 3*, pages 299–320, New Jersey, London, Singapore, Hong Kong, 2002. World Scientific Publishing Company.

Peer Reviewed International Workshops

- **Representing Mereological Relations in Weighted Description Logics.**
Gabriele Sacco, Loris Bozzato, Oliver Kutz.
Proceedings of the Joint Ontology Workshops, CAOS workshop (JOWO 2022).
Jönköping, Sweden, August 15–19, 2022. CEUR-WS, Vol-3249, IAOA Series, 2022.
- **Image Schemas and Ontology in Architectural Rules.**
Maria Rosaria Stufano Melone, Stefano Borgo, Oliver Kutz.
Proceedings of the Joint Ontology Workshops, CAOS workshop (JOWO 2022).
Jönköping, Sweden, August 15–19, 2022. CEUR-WS, Vol-3249, IAOA Series, 2022.
- **In a Nutshell: Perceptron Connectives in Knowledge Representation.**
Pietro Galliani, Guendalina Righetti, Oliver Kutz, Daniele Porello, Nicolas Troquard.
Proceedings of the 34th International Workshop on Description Logics (DL 2021).
Bratislava, Slovakia, September 27, 2021. CEUR-WS, Vol-2954, 2021.
- **Perceptron Operators That Count.**
Pietro Galliani, Oliver Kutz, Nicolas Troquard.
Proceedings of the 34th International Workshop on Description Logics (DL 2021).
Bratislava, Slovakia, September 27, 2021. CEUR-WS, Vol-2954, 2021.
- **Concept Combination in Weighted Logic.**
Guendalina Righetti, Claudio Masolo, Nicolas Troquard, Oliver Kutz, Daniele Porello.
Proceedings of the Joint Ontology Workshops, CAOS workshop (JOWO 2021).
Held at the Bolzano Summer of Knowledge, BOSK 2021, Bolzano, September 11-18. CEUR-WS, Vol-2969, IAOA Series, 2021.
- **Towards Knowledge-driven Distillation and Explanation of Black-box Models.**
Roberto Confalonieri, Pietro Galliani, Oliver Kutz, Daniele Porello, Guendalina Righetti, Nicolas Troquard
Proceedings of the International Workshop on Data meets Applied Ontologies in Explainable AI (DAO-XAI 2021).
Bratislava, Slovakia, September 18–19, 2021, CEUR-WS, Vol-2998, IAOA Series, 2021.
- **Free Description Logic for Ontologists.**
Fabian Neuhaus, Oliver Kutz, Guendalina Righetti.
Proceedings of the 6th Joint Ontology Workshops (JOWO 2020).
Bolzano, August 31–Oktober 7, 2020. CEUR-WS, Vol-2708, 2020.
- **Towards Even More Irresistible Axiom Weakening.**
Roberto Confalonieri, Pietro Galliani, Oliver Kutz, Daniele Porello, Guendalina Righetti, Nicolas Troquard.
Proc. of the 33rd Int. Workshop on Description Logics (DL 2020), CEUR Vol 2663, 2020.
- **Pink panthers and toothless tigers: Three problems in classification.**
Guendalina Righetti, Daniele Porello, Oliver Kutz, Nicolas Troquard, and Claudio Masolo.
In *Proc. of the 5th International Workshop on Artificial Intelligence and Cognition (AIC 2019)*, Manchester, September 10–11, 2019.

- **gninaeM neddiH: Using image schema violations to expose hidden semantical structures in metaphors.**
 Maria M. Hedblom and Oliver Kutz.
 In *SHAPES 5.0, held at the 5th Joint Ontology Workshops (JOWO 2019)*, Graz, September 2019.
- **A toothful of concepts: Towards a theory of weighted concept combination.**
 D. Porello, O. Kutz, N. Troquard, G. Righetti, C. Masolo and P. Galliani.
 In *Proc. of the 32nd International Workshop on Description Logics (DL-2019)*, Oslo, Norway, 2019.
- **What's Cracking? How image schema combinations can model conceptualisations of events.**
 M. Hedblom, O. Kutz, R. Peñaloza and G. Guizzardi.
 In *Proceedings of TriCoLore 2018, Joint Workshops C3GI-ISD-SCORE*, held at the Free University of Bozen-Bolzano, December 13–15, 2018. CEUR-WS Vol 2347, IAOA Series, 2019.
- **Two Applications of Concept Refinement.**
 R. Confalonieri, N. Troquard, P. Galliani, O. Kutz, R. Penaloza, D. Porello
 In *Proceedings of the First International Workshop on Comprehensibility and Explanation in AI and ML 2017, CEX-17*, co-located with 16th International Conference of the Italian Association for Artificial Intelligence (AI*IA 2017), CEUR Vol 2071, 2018.
- **Social Mechanisms for the Collective Engineering of Ontologies.**
 Porello, D., Troquard, N., Penaloza, R., Confalonieri, R., Galliani, P., Kutz O. In 7th International Workshop on Computational Social Choice (COMSOC 2018)
- **Conceptual Blending in \mathcal{EL}^{++} .** R. Confalonieri, M. Schorlemmer, O. Kutz, R. Peñaloza, E. Plaza and M. Eppe.
 In *Proc. of the International Workshop on Description Logics (DL-2016)*, Cape Town, South Africa, 2016.
- **Ontology Patterns with DOWL: The Case of Blending.** O. Kutz, F. Neuhaus, M. M. Hedblom, T. Mossakowski, M. Codescu.
 In *Proc. of the International Workshop on Description Logics (DL-2016)*, Cape Town, South Africa, 2016.
- **Upward Refinement for Conceptual Blending in Description Logic – An ASP-based Approach and Case Study in \mathcal{EL}^{++} .**
 R. Confalonieri, M. Schorlemmer, E. Plaza, M. Eppe, O. Kutz, R. Penaloza.
 In *1st Workshop on Ontologies and Logic Programming for Query Answering (ONTOLP)*, 2015.
- **Image Schemas as Families of Theories.**
 M. Hedblom, O. Kutz, F. Neuhaus. In *Proc. of Computational Creativity, Concept Invention, and General Intelligence (C3GI)*, UniLog-15, Istanbul, 2015.
- **Ontohub: A semantic repository for heterogeneous ontologies.**
 T. Mossakowski, O. Kutz, M. Codescu. In *Proc. of the Theory Day in Computer Science (DACS-2014)*, satellite workshop of ICTAC-2014, University of Bucharest, September 15–16, 2014.

- **A Categorical Approach to Ontology Alignment.**
M. Codescu, T. Mossakowski, O. Kutz. In *Proc. of the 9th International Workshop on Ontology Matching (OM-2014)*, ISWC-2014, Riva del Garda, Trentino, Italy. CEUR.
- **Fabricating Monsters is Hard: Towards the Automation of Conceptual Blending.**
F. Neuhaus, O. Kutz, M. Codescu, T. Mossakowski. In *Proc. of Computational Creativity, Concept Invention, and General Intelligence (C3GI 2014)*, ECAI-14, Prague, 2014.
- **Proof Support for Common Logic.**
T. Mossakowski, M. Codescu, O. Kutz, C. Lange, and M. Gruninger. In *Workshop on Automated Reasoning in Quantified Non-Classical Logics (ARQNL-14)*, IJCAR-Workshop, July 23, 2014, Vienna, Summer of Logic, Austria, 2014.
- **Towards resolution-based reasoning for connected logics.**
C. Nalon and O. Kutz. In *Electronic Notes in Theoretical Computer Science (ENTCS)*, Volume 305, pages 85–102, Elsevier, 2014. Post-proceedings of the 8th Workshop on Logical and Semantic Frameworks, with Applications, LSFA-13, Fernández, M. and Finger, M. (editors), pages 36–51, São Paulo, September 2–3, 2013.
- **The Distributed Ontology, Modelling and Specification Language – DOL.**
T. Mossakowski, O. Kutz, Mihai Codescu, and C. Lange. In *Proc. of the 7th International Workshop on Modular Ontologies (WoMO 2013)*, September 15, Corunna, Spain, 2013.
- **Semantics of the Distributed Ontology Language: Institutes and Institutions.**
T. Mossakowski, O. Kutz, and C. Lange. In *21st International Workshop on Algebraic Development*, Salamanca, Spain, June 7–10, 2012.
- **LoLa: A Modular Ontology of Logics, Languages, and Translations.**
C. Lange, T. Mossakowski, and O. Kutz. In *6th International Workshop on Modular Ontologies (WoMO 2012, at FOIS 2012)*, Graz, Austria, 2012.
- **The Babel of the Semantic Web Tongues—In Search of the Rosetta Stone of Interoperability.**
O. Kutz, C. Lange, T. Mossakowski, C. M. Keet, F. Neuhaus, and M. Gruninger. In *‘What will the Semantic Web look like 10 years from now?’ (SW-2022)*, in conjunction with the 11th International Semantic Web Conference (ISWC 2012), Boston, USA, 2012.
- **Ontology-based Route Planning for OpenStreetMap.**
C. Clausen, M. Codescu, D. Couto Vale, G. Horsinka, O. Kutz and T. Mossakowski. In *5th International Terra Cognita Workshop 2012*, in conjunction with the 11th International Semantic Web Conference (ISWC), Boston, USA, November 12, 2012.
- **Intuitive and Natural Interfaces for Geospatial Data Classification.** F. Schmid, O. Kutz, L. Frommberger, T. Mossakowski, T. Kauppinen, and C. Cai. In *Int. Workshop on Place-Related Knowledge Acquisition Research (P-KAR)*, 31 August, Kloster Seeon, Germany, in conjunction with Spatial Cognition 2012.
- **Representing biomedical knowledge: A view from the philosophy of science.**
A. Sojic and O. Kutz. In *Joint ICBO/FOIS Early Career Symposium*, Graz, Austria, 2012.

- **On the Incommensurability in the Carnap-Goguen Style Logical Pluralism.**
T.-K. Fu and O. Kutz. In *Proc. of the Int. Conference Incommensurability 50*, Taipei, Taiwan, 1-3 June, 2012.
- **A General Framework for Shape Similarity.**
S. Borgo and O. Kutz. In *Proc. of Shapes 1.0—The Shape of Things*, Workshop collocated with CONTEXT-11, Karlsruhe, Germany, CEUR-WS, 2011.
- **Universal Logic and the Logical Many-valuedness.**
T.-K. Fu and O. Kutz. In *Proc. of the 8th Workshop on Logic and Engineering of Natural Language Semantics, LENLS8*, Takamatsu, Japan, December 1–2, 2011.
- **Beyond the Tumour: Breast Cancer Phenotypes—Towards a pluralistic integration of heterogeneous representations.**
A. Sojic and O. Kutz. In *Proc. of Workshop of Ontologies in Biomedicine and Life Sciences, OBML-11*, October 6–7, Berlin, 2011.
- **How to model the shapes of molecules? Combining topology and ontology using heterogeneous specifications.**
J. Hastings, O. Kutz, and T. Mossakowski. In *Proc. of the Deep Knowledge Representation Challenge Workshop (DKR-11)*, co-located with K-CAP, June 26, Banff, Alberta, Canada, 2011. (Winner of 2nd Prize in DKR competition)
- **The Onto-Logical Translation Graph.**
T. Mossakowski and O. Kutz. In *Proc. of the Fifth International Workshop on Modular Ontologies (WoMO 2011)*, co-located with ESSLLI-11, Ljubljana, Slovenia, Frontiers in Artificial Intelligence and Applications, IOS Press, 2011.
- **Hyperontology for the Biomedical Ontologist—A Sketch and Some Examples.**
O. Kutz, T. Mossakowski, J. Hastings, A. Garcia Castro, and A. Sojic. In *Proc. of Workshop on Working with Multiple Biomedical Ontologies (at ICBO 2011)*, Buffalo, NY, USA, 2011.
- **Chinese Whispers and Connected Alignments.**
O. Kutz, I. Normann, T. Mossakowski, and D. Walther. In *Proc. of the 5th International Workshop on Ontology Matching, OM-2010*, collocated with the 9th International Semantic Web Conference ISWC-2010, Shanghai, China, November 7, 2010.
- **Ontology Reuse and Exploration via Interactive Graph Manipulation.**
I. Normann and O. Kutz. In *Proc. of the 1st Workshop On Semantic Repositories For The Web, SERES-2010*, collocated with the 9th International Semantic Web Conference ISWC-2010, Shanghai, China, November 7, 2010.
- **Modular Ontologies for Architectural Design.**
J. Hois, M. Bhatt, and O. Kutz. In *4th Workshop on Formal Ontologies Meet Industry, FOMI-09, Vicenza, Italy*. Frontiers in Artificial Intelligence and Applications, Vol. 198, IOS Press, 2009.
- **Context Discovery via Theory Interpretation.**
O. Kutz and I. Normann. In *IJCAI Workshop on Automated Reasoning about Context and Ontology Evolution, ARCOE-09, Pasadena, California*, 2009.

- **Ontology Correspondence via Theory Interpretation.**
I. Normann and O. Kutz. In *Workshop on Matching and Meaning, Automated development, evolution and interpretation of ontologies. Artificial Intelligence and Simulation of Behaviour Convention, AISB 2009*, April 9th, 2009, Edinburgh, UK.
- **The OWL in the CASL—Designing Ontologies Across Logics.**
O. Kutz, D. Lücke, T. Mossakowski, and I. Normann. *OWL: Experiences and Directions, 5th International Workshop (OWLED-08)*, Karlsruhe, Germany, October 26–27, 2008, co-located with ISWC-08.
- **Modular Construction of Models—Towards a Consistency Proof for the Foundational Ontology DOLCE.**
O. Kutz, D. Lücke, and T. Mossakowski. *1st International Workshop on Foundations of Computer Science as Logic-Related, (ICTAC-08)*, Istanbul, Turkey, 2008.
- **Heterogeneously Structured Ontologies—Integration, Connection, and Refinement.**
O. Kutz, D. Lücke, and T. Mossakowski. *Knowledge Representation Ontology Workshop, KROW-08*, Sydney, Australia, CRPIT Vol-90, 2008.
- **Ontologizing Metadata for Assistive Technologies—The OASIS Repository.**
A. Garcia Castro, I. Normann, J. Hois, and O. Kutz. *1st International Workshop on Ontologies in Interactive Systems (Ontoact-08)*, Liverpool, UK, 2008. IEEE.
- **Shapes of Alignments: Construction, Combination, and Computation.**
O. Kutz, T. Mossakowski and M. Codescu. In ESWC workshop *WORM-08*, ‘Ontologies: Reasoning and Modularity’, Tenerife, June 2008. CEUR Workshop Proceedings, Vol. 348.
- **Modules in Transition: Conservativity, Composition, and Colimits.**
O. Kutz and T. Mossakowski. In 2nd International Workshop on Modular Ontologies, *W_{MO}-07*, Whistler, Canada, 2007.
- **Modular Ontology Languages Revisited.**
B. Cuenca-Grau and O. Kutz. In *SW_{CKa}-07*, IJCAI Workshop on Semantic Web for Collaborative Knowledge Acquisition, Hyderabad, India, 2007.
- **A Case for Abductive Reasoning over Ontologies.**
C. Elsenbroich, O. Kutz, and U. Sattler. In *Proc. of OWL: Experiences and Directions (OWLED-06)*, Athens, Georgia, USA, November 10th–11th, 2006.
- **Will my Ontologies Fit Together?**
B. Cuenca-Grau, I. Horrocks, O. Kutz, and U. Sattler. In *Proc. of the International Workshop on Description Logics (DL-06)*, Lake District, UK, 2006.
- **The Irresistible SRIQ.**
I. Horrocks, O. Kutz, and U. Sattler. In *Proc. of: OWL: Experiences and Directions, Galway, Ireland, November 11th–12th*, 2005.
- **\mathcal{E} -Connections of Description Logics.**
O. Kutz, C. Lutz, F. Wolter, and M. Zakharyashev. In *Proc. of the International Workshop on Description Logics (DL-03)*, p. 178–187, Rome, 2003.

- **A note on concepts and distances.**
O. Kutz, F. Wolter, and M. Zakharyashev. In *Proc. of the International Workshop on Description Logics (DL-2001)*, Stanford, 2001.

Miscellanea: Invited Papers, Deliverables, Technical Reports, Extended Abstracts

- **AI's many roads to a more sustainable future: Sustainable AI at unibz.**
Alessandro Artale, Diego Calvanese, Roberto Confalonieri, Francesco Corcoglioniti, Julien Corman, Johann Gamper, Oliver Kutz, Davide Lanti, Antonio Liotta, David Massimo, Alessandro Mosca, Youssouf Oualhadj, Francesco Ricci, Nicolas Troquard, and Markus Zanker.
Proceedings of the secondo Convegno Nazionale CINI sull'Intelligenza Artificiale (Ital-IA 2022), 2022.
<https://www.ital-ia2022.it>
- **On the Role of Universal Logic in Concept Invention.**
O. Kutz, F. Neuhaus, K.U. Kühnberger. In: *Handbook of the 5th World Congress and School on Universal Logic*, 2015.
- **COINVENT: Concept Invention Theory - Ontologies and Semantic Web Technologies for Concept Invention.**
M. Schorlemmer, A. Smaill, K.-U. Kühnberger, O. Kutz, S. Colton, E. Cambouropoulos, A. Pease In *5th European Semantic Web Conference (ESWC 2014)*, EU Project Networking Session, May 27, Crete, Greece, 2014.
- **Connected Alignments: Consistency Propagation and Modularity.**
O. Kutz, I. Normann, and T. Mossakowski. *Technical Report*, The University of Bremen, 2012.
- **Biomedical ontologies facing the disunity of science.**
A. Sojic and O. Kutz. In *Proc. of the Int. Conference on the Collective Dimension of Science, CDS-11*, Nancy, December 2011.
- **Three Extended Abstracts for the 14th Congress on Logic, Methodology and Philosophy of Science, CLMPS, Nancy, 2011.**
O. Kutz and J. Hois. *Steering Ontological Blending*.
J. Hois and O. Kutz. *Towards Linguistically-Grounded Spatial Logics*.
O. Kutz. *Logical Pluralism in Ontology Design*. CLMPS Affiliated Symposium on 'Ontology between Philosophy and Computer Science'.
- **Making Heterogeneous Ontologies Interoperable Through Standardisation.**
C. Lange, T. Mossakowski, C. Galinski, and O. Kutz. In *Proc. of AEGIS 2nd International Conference Accessibility Reaching Everywhere?*, Brussels, November 28–30, 2011.
- **Ontologiebasierte Routenplanung für eine aktivitätsorientierte Elektromobilität mit OpenStreetMap.**
T. Mossakowski, M. Codescu, O. Kutz. In *Proc. of 16. Magdeburger Logistiktagung*, University of Magdeburg, Germany, 29.6–1.7 2011.

- **Ontologies and Reasoning for Ambient Assisted Living.**
I. Normann, F. Dylla, J. Hois, O. Kutz, M. Bhatt, M. Schmitt, W. Putz, S. Weber. In *Online proceedings of the 1st OASIS International Conference*, Florence, Italy, 2009.
- **Similarity-Connections between Natural Language and Spatial Situations.**
J. Hois, O. Kutz, and J. Bateman. *Workshop on Spatial Language in Context: Computational and Theoretical Approaches to Situation Specific Meaning, (SC-08)* (extended abstract), Freiburg, Germany. 2008.
- **Conservativity in Structured Ontologies.**
O. Kutz and T. Mossakowski. *Technical Report*, The University of Bremen, 2008.
- **The OWL in the CASL—Designing Ontologies Across Logics.**
O. Kutz, D. Lücke, T. Mossakowski, and I. Normann. *Technical Report*, The University of Bremen, 2008.
- **Modular Ontology Languages Revisited.**
B. Cuenca-Grau and O. Kutz. *Technical Report*, The University of Manchester, 2007. <http://www.cs.man.ac.uk/~okutz/TRm01.pdf>
- **Will my Ontologies Fit Together?**
B. Cuenca-Grau, I. Horrocks, O. Kutz, and U. Sattler. *Technical Report*, The University of Manchester, 2006. <http://www.cs.man.ac.uk/~okutz/ontologies.pdf>
- **The Even More Irresistible SROIQ.**
I. Horrocks, O. Kutz, and U. Sattler. *Technical Report*, The University of Manchester, 2006. <http://www.cs.man.ac.uk/~okutz/sroiq-TR.pdf>
- **The Irresistible SRIQ.**
I. Horrocks, O. Kutz, and U. Sattler. *Technical Report*, The University of Manchester, 2005. <http://www.cs.man.ac.uk/~okutz/sriq-tr.pdf>

5 Third Mission | Academic Service | Media

Committees and other Professional Activities

Elected **President of the IAOA**, the International Association for Ontology and its Applications, January 2023.

Associate Editor, CEUR Online Proceedings: Associate Editor of the <http://ceur-ws.org>, handling the sub-series of the IAOA Association <http://ceur-ws.org/iaoa.html>.

Elected **Vice-President of the IAOA**, the International Association for Ontology and its Applications, January 2015.

Joined the **Editorial Board** of the Journal of Applied Ontology (IOS Press) in 2015.

Member of the **advisory committee** for the 1st meeting of the **IAOA Design Semantics SIG**, Bari, Italy.

Advisory Committee for the **2013 Ontology Summit**.⁷

Elected to the **Executive Council of the IAOA**, the International Association for Ontology and its Applications, July 2012, re-elected September 2013.

Member of the **Steering Committee of WoMO** (since 2012), the Workshop series on Modular Ontologies.⁸

Guest Editor, Applied Ontology, 2010/11, *Special Issue on 'Modular Ontologies' of the International Journal of Applied Ontology*, IOS Press, with Joana Hois (Bremen).⁹

Co-project leader (with Till Mossakowski, Michael Grüninger) and Named Expert of DIN, **ISO NP 17347 (OntoIOP)**, OMG standardisation initiative concerning "Ontology Integration and Interoperability: The Distributed Ontology Language (DOL)"¹⁰

Co-chair, IAOA, since 2010 co-heading the permanent committee on "Infrastructure" of the International Association of Applied Ontology.

Founding Member, IAOA, 2009. The International Association of Ontology and its Applications was formally established in Trento in 2009.¹¹

⁷website: <http://ontolog.cim3.net/cgi-bin/wiki.pl?OntologySummit2013>

⁸website: <http://iaoa.org/womo>

⁹website: <http://www.informatik.uni-bremen.de/~okutz/womoA0/>

¹⁰website: www.ontoiop.org

¹¹website: <http://www.iaoa.org/>

Events Organised at unibz

(I) Summer schools / Student-focused events

ICCC Doctoral Consortium 2022: Bozen-Bolzano, June 28, 2022

<https://computationalcreativity.net/iccc22/doctoral-consortium-program/>
As chair (together with Roberto Confalonieri) of the doctoral consortium of ICCC 22, we organised a highly interactive forum for students from around the world working on a variety of topics in the field of computational creativity. The doctoral consortium included a session with short presentations of the doctoral students, followed by a number of round table discussions held in the University Club F6 with six senior researchers. The doctoral consortium was attended by over 20 PhD students and received substantial funding from the Artificial Intelligence Journal AIJ.

ESAO 2021: Launch Event. Educational Series on Applied Ontology, Bozen-Bolzano, September 10, 2021

<http://esao2021.inf.unibz.it>

The summer school ISAO 2020 was cancelled due to the Covid-19 Pandemic. Instead, we developed and organised a new format, namely **ESAO**, the ‘Educational Series on Applied Ontology’. ESAO 21 was a face-to-face and hybrid launch event for this series, which will collect video recordings of high quality lectures on Applied Ontology with a focus on teaching basic aspects of the field.

ISAO 2016: The 3rd Interdisciplinary School on Applied Ontology, Bozen-Bolzano, June 27–July 1, 2016

<http://isao2016.inf.unibz.it>

ISAO is the main summer school of the International Association for Ontology and its Applications, IAOA, which happens biannually in close vicinity to the FOIS conference. It attracted about 80 participants.

(II) Conferences & Workshops

General Chair, ICCC 2022: We will organise the 13th International Conference on Computational Creativity, ICCC 2022, in Bolzano between June 27–July 1. This is the premier international conference in the area of computational creativity. Invited speakers include Oliviero Stock and Alison Parish.

<https://computationalcreativity.net/iccc22/>

General Chair, EKAW 2022: We will organise the 23rd International Conference on Knowledge Engineering and Knowledge Management, EKAW 2022, in Bolzano between September 26–28. EKAW is a leading international conference in the area of knowledge engineering and is organised bi-annually in Europe, alternating with K-CAP organised in North-America.

<https://ekaw2022.inf.unibz.it>

General Chair, The 2020/21 Bolzano Summer of Knowledge: A co-location of several knowledge-focused conferences, was held during three weeks both in September 2020 and in September 2021.

Due to the Covid-19 pandemic, BOSK 2020 was held entirely online. However, a large part of the events was held again in hybrid mode in 2021. BOSK 2020 had over

700 participants, whilst BOSK 2021 had over 800 participants. See the **unibz** news release for 2020 here <https://tinyurl.com/2ef23w32> and the news release for 2021 here <https://tinyurl.com/4kcayzz4>.

Apart from a number of smaller participating conferences and workshops, the main events of BOSK are listed below. In addition to co-chairing BOSK (with Nicolas Troquard) I was also General Chair for EKAW 2020.

- **ESAO 2021:** Launch event of the educational Series on Applied Ontology (see above)
- **SWODCH 2021:** *Semantic Web and Ontology Design for Cultural Heritage*
- **FOIS 2020 & FOIS 2021:** *11th International Conference on Formal Ontology in Information Systems*
- **EKAW 2020:** *22nd International Conference on Knowledge Engineering and Knowledge Management*
- **ICBO 2020 & ICBO 2021:** *11th and 12th International Conference on Biomedical Ontology*
- **JOWO 2020 & JOWO 2021:** *The 7th and 8th Joint Ontology Workshops*
- **ICCS 2020 & ICCS 2021:** *The 25th and 26th International Conference on Conceptual Structures*
- **IEEE CBI 2021:** *23rd IEEE International Conference on Business Informatics*
- **CARLA 2020 & CARLA 2021:** *Concepts in Action: Representation, Learning, and Application*
- **SUM 2020:** *The 14th International Conference on Scalable Uncertainty Management*
- **TIME 2020:** *27th International Symposium on Temporal Representation and Reasoning*
- **OVERLAY 2020:** *2nd workshop on Artificial Intelligence and fOrmal VERification, Logic, Automata, and sYnthesis*
- **EROSS 2020:** *ER Online Summer Seminar Series*
- **EEWC 2020:** *10th Enterprise Engineering Working Conference*

TriCoLore 2018: Creativity | Cognition | Computation. Joint Workshops C3GI * ISD4 * SCORE, December 13–14, Free University of Bozen-Bolzano and EURAC Research Centre, Bozen, Italy

<https://tricolore.inf.unibz.it>

TriCoLore combined the workshop C3GI on computational creativity, the workshop ISD on image schema research, and the SCORE workshop on cognitive robotics. The event could attract 5 high-profile keynote speakers, namely Marianna Bolognesi (University of Oxford), Aldo Gangemi (University of Bologna), Irene Mittelberg (University of Aachen), Alessandro Oltramari (Bosch Research, Pittsburgh), and Marija Slavkovic (University of Bergen).

JOWO 2017: The Joint Ontology Workshops 2017. Episode 3: The Tyrolean Autumn, September 21–23, 2017

<http://iaoa.org/jowo/>

JOWO is a multi-track conference, co-locating a number of ontology-centered workshop from a broad spectrum of research fields. JOWO 2017 attracted 10 workshops

running over 3 days with Kutz as local and general chair, who also co-organised two of the workshops, ISD3 and SHAPES 4.0. JOWO attracted around 100 participants. **JOWO 2020** will be organised as part of the Bolzano Summer of Knowledge.

Further standalone workshops organised at **unibz** include:

ISD: The Image Schema Days, yearly since 2015.

<http://isd.inf.unibz.it>

The 'Image Schema Days', organised at **unibz** yearly since 2015, focus on the notion of 'image schema' central in cognitive linguistics, and its impact in AI and KR.

C3GI: Computational Creativity

<http://c3gi.inf.unibz.it/archive/>

The workshop on Computational Creativity, Concept Invention, and General Intelligence, C3GI, was co-located with the ESSLLI summerschool held at **unibz**. Kutz is now co-heading the steering committee of the C3GI series.

FOUST project.

<https://foust.inf.unibz.it>

The FOUST project kicked off at **unibz** in February 2017, with a second meeting during JOWO 2017 (at **unibz**) and a third meeting at FOIS 2018 (Cape Town, South Africa). It is at the same time a workshop format and a publication outlet with the goal to build a digital archive for foundational ontologies, documented in a special issue of the journal Applied Ontology, to be completed during 2022.

(III) Long Nights of Science

LUNA: Lange Nacht der Forschung, 2019

A new LUNA participation was developed in cooperation with our MIUR-DAAD project partners from the University of Bremen, on the topic of everyday reasoning 'La conoscenza delle cose di tutti i giorni: Comprendere e ragionare con la conoscenza di senso comune'. In particular, in the exhibition space under the title 'Wie Roboter Lernen' we demonstrated a virtual reality game in which the user could interact with common objects in a kitchen environment, with the goal of teaching machines how to better interact with such everyday objects.

LUNA: Lange Nacht der Forschung, 2016

<https://lunganottedellaricerca.it/de/standorte/freie-universitaet-bozen>

In the long night of science 2016, in the exhibition space 'Mein PC ist ein Musikgenie' we presented demos and multi-media installations on the topic of computational creativity, with a focus on music, summarising results of our FP7 research project.

Media Appearances

Several media have written about our work on computational creativity and related research projects and conferences.

TV Interview for Alto Adige TV: ICCC Conference on Computational Creativity, June 2022 Participated in an interview, together with Roberto Confalonieri, to report on the 13th International Conference of Computational Creativity.

See it here: <https://infojuice.media/permalink/2YiNRaHr9p?show=32149221#>.

Salto Interview: Article entitled “Können Computer kreativ sein?”, June 2022

On the occasion of the 13th ICCC Conference on Computational Creativity 2022, interview for Salto Online Magazine. Find it here:

<https://www.salto.bz/de/article/30062022/koennen-computer-kreativ-sein>

Futurological Congress 2020: Panel / Interview Participated in the panel discussion

‘Humanity in the Age of Artificial Intelligence’, streamed live, together with Julian Nida-Rümelin (Germany), Zoltan Istvan (USA), Grace Young (USA), Stefan Brandt (Germany), Knut Weber (Germany).

Interviews for BOSK, the 2020/2021 Bolzano Summer of Knowledge

BOSK 2020 had over 700 participants, whilst BOSK 2021 had over 800 participants.

See the **unibz news release** for 2020 here <https://tinyurl.com/2ef23w32>.

See the **unibz news release** for 2021 here <https://tinyurl.com/4kcayzz4>.

RAI TV Our exhibition space ‘Wie Roboter lernen’ from LUNA 2019 ‘Long night of science’ was selected by Rai for presentation live on TV together with an interview.

RAI TV RAI interview (local TV) in connection with the GCAI ‘Global Conference on Artificial Intelligence’, 2019.

Interview for the organisation of TriCoLore 2018, December 2018

<https://www.unibz.it/en/news/130572-koennen-roboter-kreativ-malen>

In connection with the organisation of the TriCoLore event (<https://tricolore.inf.unibz.it>), the intersection of robotics, human cognition and creativity, and ontology research was discussed in ‘Können Roboter kreativ sein?’.

Interview with Academia, September 2017

<http://www.academia.bz.it/articles/wie-man-maschinen-das-nachdenken-beibringt>

The outcomes and relevance of the JOWO conference was discussed and published in an interview for Academia under the title ‘Wie man Maschinen das Nachdenken beibringt’.

The European project COINVENT, 2014–2016

The project has enjoyed broad media coverage. A summary can be found here https://www.coinvent.uni-osnabrueck.de/en/publicationsmedia/other_media_public_appearances.html

[//www.coinvent.uni-osnabrueck.de/en/publicationsmedia/other_media_public_appearances.html](https://www.coinvent.uni-osnabrueck.de/en/publicationsmedia/other_media_public_appearances.html)