

Curriculum Vitae

Prof. Dr. Thomas Studer

Personal Information

Work Address	Institut für Informatik Universität Bern Neubrückestrasse 10 3012 Bern Switzerland	Email	thomas.studer@unibe.ch
		Web	home.inf.unibe.ch/~tstuder

Education

03/10 **Venia Docendi for *Theoretical Computer Science and Logic***
University of Bern, Switzerland

11/97 - 04/01 **PhD in Computer Science**
University of Bern, Switzerland
Thesis: *Object-Oriented Programming in Explicit Mathematics: Towards the Mathematics of Objects*
Supervisor: Prof. Gerhard Jäger
Grade: 6.0 (best possible)

10/92 - 10/97 **Diploma in Computer Science**
University of Bern, Switzerland
Thesis: *Explicit mathematics: W-type, models*
Supervisor: Prof. Gerhard Jäger
Undergraduate minors: Mathematics, Philosophy
Grade: 6.0 (best possible)

Employment History

Since 04/14 **Associate Professor**
Institute of Computer Science, University of Bern

09/05 – 03/14 **Lecturer (Dozent)**
Institute of Computer Science, University of Bern

10/03 – 08/05 **Assistant**
Research Group Logic and Theoretical Computer Science, University of Bern

06/01 – 07/03 **Senior Software Engineer, Member of the Management Board**
Crosspoint Informatik AG, Switzerland

11/97 - 04/01 **PhD Student**
Research Group Logic and Theoretical Computer Science, University of Bern

Professional Activities

Research Grants

Smaller grants for conference organization and conference visits are not mentioned.

Epistemic group attitudes	SNSF	PI	2024-2028	CHF 813'175
Non-wellfounded and cyclic proof theory	SNSF	PI	2023-2027	CHF 494,018
Grader4Gym	BeLearn Booster	Co-PI, joint project with PHBern	2023-2024	CHF 20,000
Proof and Model Theory of Intuitionistic Temporal Logic	SNSF & FWO	Co-PI, joint project with University Ghent	2021-2024	EUR 499,468 Bern share: CHF 199,763
Modalities in Substructural Logics: Theory, Methods and Applications	Horizon 2020, MSCA-RISE	Co-PI	2021-2025	EUR 1,016,600 Bern share: EUR: 36,800
Explicit Reasons	SNSF	PI	2019-2023	CHF 600,000
Justifications and Non-classical Reasoning	SNSF	PI	2016-2019	CHF 352,926
Logics for Privacy	SNSF	PI	2014-2015	CHF 63,048
Structural Proof Theory and the Logic of Proofs	SNSF	Co-PI	2014-2017	CHF 456,798
Logics for Privacy	SNSF	PI	2011-2014	CHF 163,224
Computational Proof Theory	SER	Co-PI, joint project with Moscow State University	2010-2012	CHF 174,335
Dynamic Ontologies	SNSF	Co-PI, joint project with University of Neuchâtel	2006-2008	CHF 289,951

Hosted Postdocs

Jieting Luo	Seal of Excellence Fund	UniBe	2022	CHF 33,786
Federico Faroldi	Ambizone Grant	SNSF	2021 - 2022	CHF 604,380

Jieting Luo is now a professor at Zhejiang University, China.

Federico Faroldi is now a professor at the University of Pavia, Italy.

PhD Students

I am the supervisor of the following PhD students (with the year of their PhD defense):

- Valentin Müller, ongoing
- Armand Feuilleaubois, ongoing
- Borja Sierra Miranda, ongoing
- Lukas Zenger, ongoing
- Michael Baur, 2023
- Atefeh Rohani, 2023
- Eveline Lehmann, 2021
- Nenad Savic, 2020
- Alexander Kashev, 2016
- Ioannis Kokkinis, 2016

- Johannes Werner, 2015
- Phiniki Stouppa, 2009

Swiss Academy of Sciences

- Member of the Executive Committee of the Platform Mathematics, Astronomy and Physics (Präsidium MAP), 2016-2024
- Member of the Committee for the Promotion of Young Talents (Kommission Nachwuchsförderung), since 2020
- Member of the Swiss National Committee for the International Union of History and Philosophy of Science (NC IUHPS), 2009-2024
- Member of the advisory group for the STEM Young Talent Barometer (MINT Nachwuchsbarometer), since 2025

Swiss Society for Logic and Philosophy of Science

- Board member, since 2009
- President, 2014-2018
- Secretary, 2009-2013

International Federation for Information Processing (IFIP)

- Swiss delegate to the IFIP Technical Committee 1 (Foundations of Computer Science), since 2019

Services to the University of Bern

- Member of the Strategy Board (former Planungsausschuss), Faculty of Science, since 2008
- Member of the Commission Gymnasium - University (KGH), since 2023
- Director of studies, Institute of Computer Science, 2012 and 2016
- QSE-coach (responsible for quality assurance and development), 2006-2013 (for Computer Science) and 2017 (for Mathematics, Statistics, and Computer Science)
- Representative of Oberer Mittelbau Mathematik, Statistik, Informatik in the Faculty of Science, since 2016
- Member of the Hauskommission ExWi, since 2016
- Member of many temporary committees (e.g., Struktur-, Anstellungs- und Habilitationskommissionen), Faculty of Science
- Member of the organizing committee for Digitale Information: Zwischen Flüchtigkeit und Bewahrung, Collegium Generale, 2008

Prize Juries

- Member of the jury for Prix Schläfli in Mathematics, 2018, 2021, 2024
- Jury for Bernays Prize. President: 2014, 2015, 2017, 2018. Member: 2019, 2020, 2021, 2022

International Conference and Workshop Organization

- WoLLIC 2024: Workshop on Logic, Language, Information and Computation (co-chair)
- APT 2023: Advances in Proof Theory (chair)

- Wormshop 2023: Workshop on Proof Theory, Modal Logic and Reflection Principles (chair)
- DEONTIC 2019: Deontic Logic (chair)
- AiML 2018: Advances in Modal Logic (co-chair)
- LATD 2018: Logic, Algebra and Truth Degrees (co-chair)
- TAMC 2017: Theory and Applications of Models of Computation
- LAP 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023: Logic and Applications (co-chair)
- LP 2016: Logic and Probability (chair)
- APT 2013: Advances in Proof Theory (co-chair)
- ExPa 2012: Explicit Paradigms in Logic and Computer Science
- PCC 2010: Proof, Computation, Complexity (co-chair)
- LC 2008: Logic Colloquium

Matura Examinations Kanton Bern

- Member of the Matura Commission Canton Bern and head expert for computer science, since 2019
- Expert for computer science, since 2010
- Member of the computer science curriculum group, since 2025
- Expert for mathematics, 2004-2019

Steering Committees

- Steering Committee Advances in Modal Logic, 2016-2018

PhD Juries

- Member of the PhD Jury of Esaïe Bauer, Université Paris Cité, 2025
- Member of the PhD Jury of Christophe Stammer, University of Fribourg, 2025
- Member of the PhD Jury of Guillermo Menéndez Turata, University of Amsterdam, 2024
- Member of the PhD Jury of Krisztina Fruzsá, TU Wien, 2024
- Member of the PhD Jury of Wan Nur Aqlili Ruzai, University Putra Malaysia, 2021
- Member of the PhD Jury of Stipe Pandzic, University of Groningen, 2020
- Rapporteur and member of the PhD Jury of Selena Baset, University of Neuchâtel, 2019
- Rapporteur and member of the PhD Jury of Fabrizio Alberetti, University of Neuchâtel, 2015
- Rapporteur and member of the PhD Jury of Sabine Frittella, Aix-Marseille University, 2014

CUSO Doctoral Program in Computer Science

- Representative of the University of Bern, 2017-2018

Swiss Olympiad in Informatics

- Local organizer of the Swiss Olympiad in Informatics Finals, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024

Editorial Boards

- Springer book series *Progress in Computer Science and Applied Logic*, since 2018

Refereeing

- Journals: Acta Informatica, Annals of Pure and Applied Logic, Archive for Mathematical Logic, Bulletin of Symbolic Logic, Journal of Logic and Computation, Logic Journal of the IGPL, Logique et Analyse, Mathematical Logic Quarterly, Review of Symbolic Logic, Synthese, Studia Logica, Theoretical Computer Science, ...
- Conferences / workshops: AiML, CSL, IJCAR, JELIA, LFCS, M4M, MFCS, TAMC, ...
- Projects and Persons: Vienna Science and Technology Fund (WWTF), Netherlands Organisation for Scientific Research (NWO), French National Research Agency (ANR), Tsinghua University (Beijing, China), University of Gothenburg (Sweden)

Teaching Experience

Awards

- Recognition of outstanding achievements in teaching for the lecture *Modal Logic*. Awarded by the University of Bern, 2019.

Lectures (University of Bern)

FS 25	Datenbanken
FS 25	Berechenbarkeit und Komplexität
FS 25	Praktikum Software Engineering (with: eonum AG, SwissDRG AG, Abilium GmbH, Zühlke AG, time to rise coaching, Insel Spital, Qumea AG, QSData GmbH)
FS 25	Seminar: Theoretische Informatik und Logik
FS 24	Datenbanken
FS 24	Berechenbarkeit und Komplexität
FS 24	Praktikum Software Engineering (with: Devedis AG, SwissDRG AG, Abilium GmbH, Zühlke AG, time to rise coaching, Insel Spital)
FS 24	Seminar: Theoretische Informatik und Logik
HS 23	Proof Theory
HS 23	Grundlagen der Technischen Informatik
HS 23	Seminar: Theoretische Informatik und Logik
FS 23	Datenbanken
FS 23	Berechenbarkeit und Komplexität
FS 23	Praktikum Software Engineering (with: Devedis AG, eonum AG, Abilium GmbH, Zühlke AG, Smart Energy Link AG, Soulcoachin')
FS 23	Seminar: Theoretische Informatik und Logik
HS 22	Justification Logic
HS 22	Grundlagen der Technischen Informatik
HS 22	Seminar: Theoretische Informatik und Logik
FS 22	Datenbanken
FS 22	Berechenbarkeit und Komplexität
FS 22	Praktikum Software Engineering (with: Devedis AG, eonum AG, Abilium GmbH, Zühlke AG, Puzzle ITC GmbH, SwissDRG AG)
FS 22	Seminar: Theoretische Informatik und Logik

HS 21	Seminar: Advanced Algorithms
HS 21	Grundlagen der Technischen Informatik
HS 21	Einführung in die Informatik (joint lecture of all CS docents)
HS 21	Seminar: Theoretische Informatik und Logik
FS 21	Datenbanken
FS 21	Praktikum Software Engineering (with: Smart Energy Link AG, eonum AG, Abilium GmbH, Zühlke AG, Puzzle ITC GmbH, SSV, MedOrg)
FS 21	Seminar: Theoretische Informatik und Logik
HS 20	Justification Logic
HS 20	Grundlagen der Technischen Informatik
HS 20	Programmieren 1
HS 20	Einführung in die Informatik (joint lecture of all CS docents)
HS 20	Seminar: Theoretische Informatik und Logik
FS 20	Datenbanken
FS 20	Praktikum Software Engineering (with: Smart Energy Link AG, eonum AG, SwissDRG AG, Abilium GmbH, Zühlke AG, Puzzle ITC GmbH)
FS 20	Seminar: Theoretische Informatik und Logik
HS 19	Modal Logic
HS 19	Grundlagen der Technischen Informatik
HS 19	Einführung in die Informatik (joint lecture of all CS docents)
HS 19	Anwendungssoftware
HS 19	Seminar: Theoretische Informatik und Logik
FS 19	Datenbanken
FS 19	Praktikum Software Engineering (with: Smart Energy Link AG, eonum AG, SwissDRG, Abilium GmbH, Wiederkäuferklinik Vetsuisse Fakultät)
FS 19	Seminar: Theoretische Informatik und Logik
HS 18	Justification Logic
HS 18	Grundlagen der Technischen Informatik
HS 18	Programmieren 1
HS 18	Einführung in die Informatik (joint lecture of all CS docents)
HS 17	Description Logic
HS 17	Grundlagen der Technischen Informatik
HS 17	Programmieren 1
HS 17	Einführung in die Informatik (joint lecture of all CS docents)
FS 17	Datenbanken
FS 17	Praktikum Software Engineering (with: eonum AG, SwissDRG, qualitaetsmedizin.ch, Pfadi Patria, Bergclub Bern)
HS 16	Justification Logic
HS 16	Grundlagen der Technischen Informatik
HS 16	Einführung in die Informatik (joint lecture of all CS docents)
HS 16	Anwendungssoftware
FS 16	Datenbanken
FS 16	Praktikum Software Engineering (with: eonum AG, SwissDRG, iLUB, Hochschuldidaktik UniBe)
FS 16	Seminar: Theoretische Informatik und Logik

HS 15 Modal Logic
 HS 15 Grundlagen der Technischen Informatik
 HS 15 Einführung in die Informatik (joint lecture of all CS docents)
 HS 15 Anwendungssoftware

FS 15 Datenbanken
 FS 15 Praktikum Software Engineering (with: eonum AG, tink.ch, SwissDRG, Digital Humanities @ Universität Bern, Pfadi Patria)

HS 14 Justification Logic
 HS 14 Grundlagen der Technischen Informatik
 HS 14 Einführung in die Informatik (joint lecture of all CS docents)
 HS 14 Anwendungssoftware

FS 14 Seminar: Algebra and Logic (together with George Metcalfe)
 FS 14 Datenbanken
 FS 14 Praktikum Software Engineering (with: SolarSuperState Association, SwissDRG, Pfadi Patria, iLUB)

HS 13 Dynamic Epistemic Logic
 HS 13 Grundlagen der Technischen Informatik
 HS 13 Einführung in die Informatik (joint lecture of all CS docents)
 HS 13 Anwendungssoftware

FS 13 Datenbanken
 FS 13 Praktikum Software Engineering (with: Schule Länggasse, SUB, SGfM, SwissDRG)

HS 12 Justification Logic
 HS 12 Grundlagen der Technischen Informatik
 HS 12 Einführung in die Informatik (joint lecture of all CS docents)
 HS 12 Anwendungssoftware

FS 12 Rechnerarchitektur
 FS 12 Praktikum Software Engineering (with: SwissDRG, eonum AG, getItLate)

FS 11 Rechnerarchitektur
 FS 11 Praktikum Software Engineering (with: NILE Clothing, Freudiger EDV Beratung, Institut für Erziehungswissenschaft)

HS 10 Grundlagen der Technischen Informatik
 HS 10 Einführung in die Informatik (joint lecture of all CS docents)
 HS 10 Anwendungssoftware

FS 10 Rechnerarchitektur
 FS 10 Praktikum Software Engineering (with: Lumrix GmbH, Uptown Bigband)

HS 09 Grundlagen der Technischen Informatik
 HS 09 Einführung in die Informatik (joint lecture of all CS docents)
 HS 09 Anwendungssoftware

FS 09 Rechnerarchitektur
 FS 09 Praktikum Software Engineering (with: SBB, Lumrix GmbH, Internationales Büro Universität Bern)
 FS 09 Seminar: Theoretische Informatik und Logik

HS 08	Grundlagen der Technischen Informatik
HS 08	Anwendungssoftware
FS 08	Rechnerarchitektur
FS 08	Praktikum Software Engineering (with: Swisscom, Bujutsu School Bern)
HS 07	Grundlagen der Technischen Informatik
HS 07	Anwendungssoftware
SS 07	Rechnerarchitektur
SS 07	Praktikum Software Engineering (with: Swisscom, Web-Id GmbH, Informatikdienste Universität Bern)
WS 06/07	Grundlagen der Technischen Informatik
WS 06/07	Anwendungssoftware
SS 06	Rechnerarchitektur
SS 06	Praktikum Software Engineering (with: Cassarius AG)
SS 06	Seminar: Theoretische Informatik und Logik
WS 05/06	Grundlagen der Technischen Informatik
WS 05/06	Anwendungssoftware
SS 04	Anwendungssoftware
WS 03/04	Anwendungssoftware

Lectures (University of Applied Sciences Solothurn Northwestern Switzerland)

SS 98 Substitute lecturer in mathematics

Publications (authors are listed in alphabetical order)

Books

- Relationale Datenbanken: von den theoretischen Grundlagen zu Anwendungen mit PostgreSQL, 2. erweiterte Auflage, Springer, 2019
- Logics of Proofs and Justifications, joint work with Roman Kuznets, College Publications, 2019
- Relationale Datenbanken: von den theoretischen Grundlagen zu Anwendungen mit PostgreSQL, Springer, 2016

Books (edited)

- Logic, Language, Information, and Computation - WoLLIC 2024, jointly edited with George Metcalfe and Ruy de Queiroz, Springer, 2024
- Advances in Modal Logic, Volume 12, jointly edited with Guram Bezhanishvili, Giovanna D'Agostino, and George Metcalfe, College Publications, 2018
- Advances in Proof Theory, jointly edited with Reinhard Kahle and Thomas Strahm, vol 28 of Progress in Computer Science and Applied Logic, Birkhäuser, 2016

In journals

- Cut elimination for the master modality, joint paper with Borja Sierra Miranda, submitted

- Tailoring Explanations Through Conversation, joint paper with Jieting Luo and Mehdi Dastani, *Journal of Logic and Computation*, 2025.
- Synergistic Knowledge, joint paper with Christian Cachin and David Lehnerr, *Theoretical Computer Science*, 2025
- Explicit non-normal modal logic, joint paper with Atefeh Rohani, *Journal of Logic and Computation*, 2024
- Consistency and permission in deontic justification logic, joint paper with Federico Faroldi, Meghdad Ghari and Eveline Lehmann, *Journal of Logic and Computation*, 34(4):640-664, 2024
- A logic of interactive proofs, joint paper with David Lehnerr and Zoran Ognjanovic, *Journal of Logic and Computation* 32(8):1645-1658, 2022.
- The impossibility of keeping secrets, *Malaysian Journal of Mathematical Sciences*, 15(S):91-104, 2021.
- Semirings of Evidence, joint paper with Michael Baur, *Journal of Logic and Computation*, 31(8):2084-2106, 2021.
- A conflict tolerant logic of explicit evidence, *Logical Investigations*, 27(1):124-144, 2021.
- A Logic of Knowing Why, joint paper with Chao Xu and Yanjing Wang, *Synthese*, 198:1259-1285, 2021.
- A Logic of Blockchain Updates, joint paper with Kai Brännler and Dandolo Flumini, *Journal of Logic and Computation*, 30(8):1469-1485, 2020.
- Probabilistic Justification Logic, joint paper with Ioannis Kokkinis and Zoran Ognjanović, *Journal of Logic and Computation*, 30(1):257-280, 2020.
- A Temporal Epistemic Logic with a Non-rigid Set of Agents for Analyzing the Blockchain Protocol, joint paper with Bojan Marinković, Paola Glavan, and Zoran Ognjanović, *Journal of Logic and Computation*, 29(5):803-830, 2019.
- Relevant Justification Logic, joint paper with Nenad Savić, *Journal of Applied Logic*, *Journal of Applied Logics*, 6(2):397-412, 2019.
- Intuitionistic Modal Logic Made Explicit, joint paper with Michel Marti, *IfCoLog Journal of Logics and their Applications*, 3(5):877-901, 2016
- Weak Arithmetical Interpretations for the Logic of Proofs, joint paper with Roman Kuznets, *Logic Journal of the IGPL*, 2016
- First Steps towards Probabilistic Justification Logic, joint paper with Ioannis Kokkinis, Petar Maksimović, and Zoran Ognjanović, *Logic Journal of the IGPL*, 23(4):662-687, 2015
- Censors for Boolean Description Logic, joint paper with Johannes Werner, *Transactions on Data Privacy*, 7(3):223-252, 2014
- Justifying induction on modal μ -formulae, joint paper with Luca Alberucci and Jürg Krähenbühl, *Logic Journal of the IGPL*, 22(6):805-817, 2014
- Realizing Public Announcements by Justifications, joint paper with Samuel Bucheli and Roman Kuznets, *Journal of Computer and System Sciences*, 80(6):1046-1066, 2014
- Decidability for some justification logics with negative introspection, *Journal of Symbolic Logic*, 78(2):388-402, 2013
- A Universal Approach to Guarantee Data Privacy *Logica Universalis*, 7(2):195-209, 2013
- Syntactic cut-elimination for a fragment of the modal μ -calculus, joint paper with Kai Brännler, *Annals of Pure and Applied Logic*, 163(12):1838-1853, 2012.
- Justification Logic, Inference Tracking, and Data Privacy, *Logic and Logical Philosophy*, 20(4):297-306, 2011
- Justifications for Common Knowledge, joint paper with Samuel Bucheli and Roman Kuznets, *Journal of Applied Non-classical Logics*, 21(1):35-60, 2011
- A Buchholz Rule for Modal Fixed Point Logics, joint paper with Gerhard Jäger, *Logica Universalis*, 5(1):1-19, 2011
- Syntactic cut-elimination for common knowledge, joint paper with Kai Brännler, *Annals of Pure and Applied Logic*, 160(1):82-95, 2009
- Common Knowledge does not have the Beth property, *Information Processing Letters*, 109:611-614, 2009
- On the proof theory of the modal μ -calculus, *Studia Logica*, 89:343-363, 2008

- Canonical completeness of infinitary μ , joint paper with Gerhard Jäger and Mathis Kretz, *Journal of Logic and Algebraic Programming*, 76(2):270-292, 2008
- On Contraction and the Modal Fragment, joint paper with Kai Brännler and Dieter Probst, *Mathematical Logic Quarterly*, 54(4):345-349, 2008
- Cut-free Common Knowledge, joint paper with Gerhard Jäger and Mathis Kretz, *Journal of Applied Logic*, 5:681-689, 2007
- Deduction Chains for Common Knowledge, joint paper with Mathis Kretz, *Journal of Applied Logic*, 4:331-357, 2006
- Explicit Mathematics: Power Types and Overloading, *Annals of Pure and Applied Logic*, 134 (2-3):284-302, 2005
- Extending the system T_0 of explicit mathematics: the limit and Mahlo axioms, joint paper with Gerhard Jäger, *Annals of Pure and Applied Logic*, 114 (1-3):79-101, 2002
- Formalizing non-termination of recursive programs, joint paper with Reinhard Kahle, *Journal of Logic and Algebraic Programming*, 49 (1-2):1-14, 2001
- A semantics for $\lambda\{\}$: a calculus with overloading and late-binding, *Journal of Logic and Computation*, 11 (4):527-544, 2001
- How to normalize the jay, joint paper with Dieter Probst, *Theoretical Computer Science*, 254 (1-2):677-681, 2001
- Universes in explicit mathematics, joint paper with Gerhard Jäger and Reinhard Kahle, *Annals of Pure and Applied Logic*, 109 (3):141-162, 2001

In conference proceedings and collections

- Simplicial Belief, joint paper with Christian Cachin and David Lehnherr, in *Proc. Scirocco 2025*, in press.
- Temporal Logics Meet Real-World Software Requirements: A Reality Check, joint paper with Roman Bögli, Atefeh Rohani, Christos Tsigkanos, and Timo Kehrer, in *Proc. IEEE/ACM 13th International Conference on Formal Methods in Software Engineering (FormalISE)*, 2025
- Coalgebraic proof translations for non-wellfounded proofs, joint paper with Borja Sierra Miranda and Lukas Zenger, in Agata Ciabattoni, David Gabelaia, Igor Sedlár, editors, *Advances in Modal Logic 2024*, pages 527-548, 2024
- Justification Logic, joint work with Sergei Artemov and Melvin Fitting, in E. N. Zalta and U. Nodelman, editors, *The Stanford Encyclopedia of Philosophy (Fall 2024 Edition)*, 2011
- Synergistic Knowledge, joint paper with Christian Cachin and David Lehnherr, in S. Dolev, B. Schieber, editors, *Safety, and Security of Distributed Systems SSS 2023*, volume 14310 of LNCS, pages 552-567. Springer, 2023
- Modal and justification logics for multi-agent systems, joint paper with Christian Cachin and David Lehnherr, in Herzig, A., Luo, J., Pardo, P., editors, *Logic and Argumentation - CLAR 2023*, volume 14159 of LNAI, pages 3-8. Springer, 2023
- Providing personalized explanations: a conversational approach, joint paper with Jieting Luo and Mehdi Dastani, in Herzig, A., Luo, J., Pardo, P., editors, *Logic and Argumentation - CLAR 2023*, volume 14159 of LNAI, pages 121-137. Springer, 2023
- Conditional Obligations in Justification Logic, joint paper with F. Faroldi and A. Rohani, in *Proceedings of Logic, Language, Information, and Computation - WoLLIC 2023*, to appear 2023
- What do you care about: inferring values from emotions (extended abstract), joint paper with Jieting Luo, Mehdi Dastani, and Beishui Liao, in A. Ricci, W. Yeoh, N. Agmon, B. An, editors, *Proceedings of the 22nd International Conference on Autonomous Agents and Multiagent Systems*, pages 2289-2291. IFAMAS, 2023
- Development of an AI-based bioacoustic wolf monitoring system, joint paper with Olivier Stähli and Thomas Ost, in *Proceedings of FLAIRS-35*, 2022
- A Logic of Interactive Proofs, joint paper with David Lehnherr and Zoran Ognjanovic, in S. Artemov, A. Nerode, editors, *Proceedings of Logical Foundations of Computer Science LFCSS'22*, volume 13137 of LNCS, pages 143-155. Springer, 2022

- Incomplete Information and Justifications, joint paper with Dragan Doder, Zoran Ognjanovic and Nenad Savic, to appear in *Logic, Language and Computation TbiLLC 2019*
- Exploring Subset Models for Justification Logic, joint paper with Eveline Lehmann, in M. Fitting, editor, *Selected Topics from Contemporary Logics*, College Publications, pages 605-634. 2021
- Explicit Non-normal Modal Logic, joint paper with Atefeh Rohani, in A. Silva, R. Wassermann, R. de Queiroz, editors, *Logic, Language, Information, and Computation - WoLLIC 2021*, volume 13038 of LNCS, pages 64-81. Springer, 2021
- Semirings of Evidence, joint paper with Michael Baur, in *Proceedings of Logic and Argumentation (CLAR 2020)*, to appear. Springer, 2020
- Belief Expansion in Subset Models, joint paper with Eveline Lehmann, in S. Artemov, A. Nerode, editors, *Proceedings of Logical Foundations of Computer Science LFCS'20*, volume 11972 of LNCS, pages 85-97. Springer, 2020
- Justification Logics with Probability Operators, joint paper with Ioannis Kokkinis and Nenad Savic, in Z. Ognjanovic, editor, *Probabilistic Extensions of Various Logical Systems*. Springer, 2020.
- Probabilistic Consensus of the Blockchain Protocol, joint paper with Bojan Marinkovic, Paola Glavan, Zoran Ognjanovic, and Dragan Doder, in G. Kern-Isberner, Z. Ognjanovic, editors, *Symbolic and Quantitative Approaches to Reasoning with Uncertainty - ECSQARU 2019*, volume 11726 of LNAI, pages 469-480. Springer, 2019.
- Bayesian Confirmation and Justifications, joint paper with Hamzeh Mohammadi in G. Kern-Isberner, Z. Ognjanovic, editors, *Symbolic and Quantitative Approaches to Reasoning with Uncertainty - ECSQARU 2019*, volume 11726 of LNAI, pages 408-418. Springer, 2019.
- Subset models for justification logic, joint paper with Eveline Lehmann in R. Iemhoff, M. Moortgat, R. de Queiroz, editors, *Logic, Language, Information, and Computation - WoLLIC 2019*, volume 11541 of LNCS, pages 433-449. Springer 2019.
- Public Announcements for Epistemic Models and Hypertheories, joint paper with Nenad Savić, in Md. A. Khan, A. Manuel, editors, *Logic and its Applications ICLA 2019*, volume 11600 of LNCS, pages 64-75. Springer, 2019
- The Logic of Temporal Domination, in *RIVF 2019 Conference Proceedings*, pages 187-190. IEEE, 2019
- The Internalized Disjunction Property for Intuitionistic Justification Logic, joint paper with Michel Marti, in G. Bezhanishvili, G. D'Agostino, G. Metcalfe, and T. Studer, editors, *Advances in Modal Logic*, Volume 12, pages 511-529. College Publications, 2018
- A Logic of Blockchain Updates, joint paper with Kai Brunnler and Dandolo Flumini, in S. Artemov, A. Nerode, editors, *Proceedings of Logical Foundations of Computer Science LFCS'18*, volume 10703 of LNCS, pages 107-119. Springer, 2018
- The Proof Theory of Common Knowledge, joint paper with Michel Marti, in H. van Ditmarsch and G. Sandu, editors, *Jaakko Hintikka on Knowledge and Game-Theoretical Semantics, Outstanding Contributions to Logic*, volume 12, pages 433-455. Springer, 2018
- Justification logic with approximate conditional probabilities, joint paper with Zoran Ognjanović and Nenad Savić, in A. Baltag, J. Seligman, T. Yamada, editors, *Logic, Rationality and Interaction*, volume 10455 of LNCS, pages 681-686. Springer, 2017
- Temporal Justification Logic, joint paper with Samuel Bucheli and Meghdad Ghari, in S. Ghosh and R. Ramanujam, editors, *Proceedings of Methods for Modalities M4M-9*, volume 243 of EPTCS, pages 59-74, 2017
- Probabilistic Justification Logic, joint paper with Ioannis Kokkinis and Zoran Ognjanović, in S. Artemov, A. Nerode, editors, *Proceedings of Logical Foundations of Computer Science LFCS'16*, volume 9537 of LNCS, pages 174-186. Springer, 2016
- Cyclic Proofs for Linear Temporal Logic, joint paper with Ioannis Kokkinis, in D. Probst, P. Schuster, editors, *Concepts of Proof in Mathematics, Philosophy, and Computer Science*, volume 6 of *Ontos Mathematical Logic*, pages 171-192. De Gruyter, 2016
- Decidability for Justification Logics Revisited, joint paper with Samuel Bucheli and Roman Kuznets, in G. Bezhanishvili, S. Löbner, V. Marra, F. Richter, editors, *Logic, Language and Computation TbiLLC 2011*, volume 7758 of LNCS, pages 166-181. Springer, 2013

- Update As Evidence: Belief Expansion, joint paper with Roman Kuznets, in S. Artemov, A. Nerode, editors, Proceedings of Logical Foundations of Computer Science LFCS'13, volume 7734 of LNCS, pages 266-279. Springer, 2013
- Justifications, Ontology, and Conservativity, joint paper with Roman Kuznets, in T. Bolander, T. Braüner, S. Ghilardi, L. Moss, editors, Advances in Modal Logic, volume 9, pages 437-458. College Publications, 2012
- Justified Terminological Reasoning, in E. Clarke, I. Virbitskaite, A. Voronkov, editors, Proceedings of Perspectives of System Informatics PSI'11, volume 7162 of LNCS, pages 349-361. Springer, 2012
- Cut-elimination for the mu-calculus with one variable, joint paper with Grigori Mints, in Fixed Points in Computer Science 2012, volume 77 of EPTCS, pages 47–54. Open Publishing Association, 2012
- An application of justification logic to protocol verification, in Proceedings of Computational Intelligence and Security CIS 2011, pages 779-783. IEEE, 2011
- Partial Realization in Dynamic Justication Logic, joint paper with Samuel Bucheli and Roman Kuznets, in L. Beklemishev and R. de Queiroz, editors, Logic, Language, Information and Computation WOLLIC 2011, volume 6642 of LNCS, pages 35-51. Springer 2011
- Justified Belief Change, joint paper with Samuel Bucheli, Roman Kuznets, Bryan Renne, and Joshua Sack, in X. Arrazola, M. Ponte, editors, Proceedings of Logic and Philosophy of Knowledge, Communication and Action, pages 135-155. Basque Country Press 2010
- Two ways to common knowledge, joint paper with Samuel Bucheli and Roman Kuznets, in T. Bolander, T. Braüner, editors, Proceedings of Methods for Modalities M4M6, volume 262 of ENTCS, pages 83-98. Elsevier 2010
- Privacy Preserving Modules for Ontologies, in A. Pnueli, I. Virbitskaite, A. Voronkov, editors, Proceedings of Perspectives of System Informatics PSI'09, volume 5947 of LNCS, pages 380-387. Springer 2010
- Data privacy for ALC knowledge bases, joint paper with Phiniki Stouppa, in S. Artemov, A. Nerode, editors, Proceedings of Logical Foundations of Computer Science LFCS'09, volume 5407 of LNCS, pages 409-421. Springer 2009
- Syntactic cut-elimination for common knowledge (superseded by the journal version), joint paper with Kai Brünnler, in C. Areces and S. Demri, editors, Proceedings of Methods for Modalities M4M5, volume 231 of ENTCS, pages 227-240. Elsevier 2009
- Improving semantic query answering, joint paper with Norbert Kottmann, in R. Wagner, N. Revell, G. Pernul, editors, Proceedings of 18th International Conference on Database and Expert Systems Applications DEXA '07, volume 4653 of LNCS, pages 671-679. Springer 2007
- Total Public Announcements, joint paper with David Steiner, in S. Artemov, A. Nerode, editors, Proceedings of Logical Foundations of Computer Science LFCS'07, volume 4514 of LNCS, pages 498-511. Springer, 2007
- A Formal Model of Data Privacy, joint paper with Phiniki Stouppa, in I. Virbitskaite, A. Voronkov, editors, Proceedings of Perspectives of System Informatics PSI'06, volume 4378 of LNCS, pages 401-411. Springer, 2007
- A finitary cut-free axiomatization for stratified modal fixed point logics, joint paper with Gerhard Jäger and Mathis Kretz, in H. Schlingloff, editor, Proceedings of Methods for Modalities 4, pages 125-143. 2005
- Provable Data Privacy, joint paper with Kilian Stoffel, in K. Viborg Andersen, J. Debenham, R. Wagner, editors, Proceedings of 16th International Conference on Database and Expert Systems Applications DEXA '05, volume 3588 of LNCS, pages 324-332. 2005
- Probabilistic ABox Reasoning: Preliminary Results, joint paper with Michael Dürig, in I. Horrocks, U. Sattler, F. Wolter, editors, Proceedings of Description Logics DL'05, pages 104-111. 2005
- Constructive Foundations for Featherweight Java, in R. Kahle, P. Schroeder-Heister, R. Stärk, editors, Proof Theory in Computer Science, volume 2183 of LNCS, pages 202-238. Springer, 2001

- A theory of explicit mathematics equivalent to ID_1 , joint paper with Reinhard Kahle, in P. Clote, H. Schwichtenberg, editors, Computer Science Logic CSL 2000, volume 1862 of LNCS, pages 356-370. Springer, 2000

Theses

- Proof-Theoretic Contributions to Modal Fixed Point Logics, Habilitation thesis, University of Bern, 2010
- Object-Oriented Programming in Explicit Mathematics: Towards the Mathematics of Objects, Dissertation thesis, University of Bern, 2001
- Explicit mathematics: W-type, models, Master's thesis, University of Bern, 1997

Selected Talks (* invited)

- Simplicial Complexes for Epistemic Logic and Distributed Computing, Arbeitstagung Bern-München-Verona, LMU Munich, November 2024
- Simplicial Complexes for Epistemic Logic*, University of Florence, November 2024
- Non-wellfounded proofs*, Tsinghua University, Beijing, China, September 2024
- Simplicial Complexes for Epistemic Logic*, Peking University, Beijing, China, September 2024
- Justification logic – introduction and recent developments*, Zhejiang University, Hangzhou, China, August 2024
- Simplicial Complexes for Epistemic Logic*, Computational Logic Seminar, CUNY, New York (online), March 2024
- Simplicial Complexes for Epistemic Logic, Proof, Argumentation, Computation, Modalities and Negation, University of Verona, March 2024
- Justification logic – introduction and recent developments*, Computational Logic Seminar, CUNY, New York (online), March 2024
- Non-wellfounded Systems for Arithmetic*, Workshop on Modal Fixpoint Logics, Amsterdam, January 2024.
- Justification Logic*, Association for Symbolic Logic Winter Meeting with APA, New York, January 2024.
- New forms of distributed knowledge, Logic and Applications, Dubrovnik, September 2023
- Modal and justification logics for multi-agent systems*, Logic and Argumentation, Zhejiang University, Hangzhou, China, September 2023
- Synergistic Knowledge*, Dagstuhl Seminar: Epistemic and Topological Reasoning in Distributed Systems, Schloss Dagstuhl, June 2023
- Cyclic proofs*, Computational Logic Seminar, CUNY, New York (online), November 2022
- Cut-elimination for modal logics with fixed point*, Logic Seminar, University of Gothenburg, October 2022
- Justification logic – introduction and recent developments*, Carl Friedrich von Weizsäcker-Kolloquium, Tübingen (online), June 2022
- Development of an AI-based bioacoustic wolf monitoring system, FLAIRS-35, Jensen Beach, Florida, May 2022
- A logic of interactive proofs, Logical Foundations of Computer Science, Deerfield Beach, Florida, January 2022
- Justification logic – introduction and recent developments*, Logic Salon, Tsinghua Logic Salon, Beijing (online), November 2021
- A logic of interactive proofs*, PM65 – an international workshop of logic, Florence, October 2021
- A logic of interactive proofs*, 9th International Conference on Research and Education in Mathematics, Universiti Putra Malaysia (online), August 2021

- On the proof theory of modal logics with fixed points*, St. Petersburg Days of Logic and Computability V, St. Petersburg (online), May 2021
- The impact of logic on science and technology*, World Philosophy Day, online, November 2020
- A modal logic formalization of controlled query evaluation, Logic and Applications, online, September 2020
- No-go theorems for data privacy, Cryptology 2020, online, June 2020
- The proof theory of common knowledge and other modal fixed point logics*, Logical Foundations of Computer Science, Deerfield Beach, Florida, January 2020
- Belief Expansion in Subset Models, Logical Foundations of Computer Science, Deerfield Beach, Florida, January 2020
- Subset semantics for justification logics*, Workshop on Proof Theory, Modal Logic and Reflection Principles, Barcelona, November 2019
- A problem with probabilistic CTL, Logic and Applications, Dubrovnik, September 2019
- Bayesian confirmation and justification, European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty, Belgrade, September 2019
- Subset models for justification logic*, Association for Symbolic Logic 2019 Annual North American Meeting, New York, May, 2019
- The proof theory of modal fixed point logics*, SGSLPS Meeting on Real Valued Modal Logic, Bern, November 2018
- The proof theory of modal fixed point logics*, Chinese Mathematical Logic Conference, Duyun, China, May 2018
- Common knowledge from a proof theoretic perspective*, Logic Seminar, Tsinghua University, Beijing, May 2018
- I know that you know that I know – Epistemic Logic in Computer Science*, Mini Symposium of Computer Graphics, Data Science, Logic and Security, Bern, February 2018
- A Logic of Blockchain Updates, Logical Foundations of Computer Science, Deerfield Beach, Florida, January 2018
- Justification Logic with Approximate Conditional Probabilities, LORI 2017, Sapporo, September 2017
- Blockchain Logic*, Mathematical Institute of Serbian Academy of Sciences and Arts Workshop, Belgrade, June 2017
- Blockchain Logic*, CELLO Workshop, Nancy, May 2017
- The Proof-Theory of Common Knowledge*, Constructivism, Logic and Topology, Bern, January 2017
- Temporal Justification Logic, Proofs, Methods for Modalities, Kanpur, January 2017
- Justification Logic*, Proofs, Justification and Certificates, Toulouse, June 2016
- The Proof Theory of Common Knowledge*, Various Aspects of Modality, Isfahan, May 2016
- Justification Logic*, Various Aspects of Modality, Isfahan, May 2016
- Justification Logic*, Interdisciplinary Lab for Intelligent and Adaptive Systems, Luxembourg, March 2016
- Probabilistic Justification Logic, Logical Foundations of Computer Science, Deerfield Beach, Florida, January 2016
- Introduction to Justification Logic*, Non-Classical Logics and Paradox II, Bern, October, 2015
- Probabilistic Justification Logic, Universal Logic, Istanbul, June 2015
- Justification Logic*, Seminar for Probability Logic, Mathematical Institute of Serbian Academy of Sciences and Arts, Belgrade, June 2015
- Modal Logic—an Introduction*, Center for Mathematics and Statistics: General Seminar, University of Novi Sad, June 2015
- Proofs and Fixed Points*, Journée Logique, Marseille, December 2014.
- Justification Logic—a Short Introduction, Logic and Applications, Dubrovnik, September 2014
- Weak Arithmetical Semantics for the Logic of Proofs, Logic Colloquium, Vienna, July 2014

- On Cuts and Cut-Elimination in Modal Fixed Point Logics, Gentzen Systems and Beyond, Vienna, July, 2014
- Towards Syntactic Cut-Elimination for Temporal Logics, Theory and Application of Formal Proofs, Paris, November 2013
- Cut-Elimination for Modal Fixed Point Logics, Logic and Applications, Dubrovnik, September 2013
- Update as Evidence, Universal Logic, Rio de Janeiro, April 2013
- Update as Evidence: Belief Expansion, Logic and Information, Schloss Münchenwiler, February 2013
- Justification Logic—a Short Introduction*, Winter School on Proof and Computation, Les Diablerets, January 2013
- Update as Evidence: Belief Expansion, Logical Foundations of Computer Science, San Diego, January 2013
- Justifications, Ontology, and Conservativity, Advances in Modal Logic, Copenhagen, August 2012
- Cut-Elimination for the mu-Calculus with one Variable, Algebra and Coalgebra meet Proof Theory, Prague, April 2012
- Cut-Elimination for the mu-Calculus with one Variable, Fixed Points in Computer Science, Tallinn, March 2012
- An Application of Justification Logic to Protocol Verification, Computational Intelligence and Security, Sanya, December 2011
- Decidability for Justification Logics, Logic and Information, Schloss Münchenwiler, October 2011
- Decidability for Justification Logics Revisited, Symposium on Language, Logic and Computation, Kutaisi, September 2011
- Dynamic Justification Logic, Logic, Methodology and Philosophy of Science, Nancy, July 2011
- Justified Terminological Reasoning, Perspectives of System Informatics, Novosibirsk, June 2011
- Description Logics und Web-Ontologien*, Gesellschaft für Mathematik an Schweizer Fachhochschulen, Generalversammlung, Regensburg, June 2011
- Deductive Systems for Common Knowledge*, Algebra and Coalgebra meet Proof Theory, Bern, April 2011
- Justified Belief Change, Logic and Philosophy of Knowledge, Communication and Action, San Sebastian, November 2010
- Knowledge Base Distortion to Guarantee Data Privacy, Non-Classical Logic: Theory and Applications, Torun, September 2010
- Syntactic Cut-elimination for Modal Fixed Point Logics, Universal Logic, Monte Estoril, April 2010
- Two Ways to Common Knowledge, Methods for Modalities 6, Copenhagen, November 2009
- On the Proof Theory of Common Knowledge, British Logic Colloquium, Swansea, September 2009
- The Buchholz rule for modal fixed point logics, Leeds Symposium on Proof Theory and Constructivism, Leeds, July 2009
- Privacy Preserving Modules for Ontologies, Perspectives of System Informatics, Novosibirsk, June 2009
- Data Privacy for ALC Knowledge Bases, Logical Foundations of Computer Science, Deerfield Beach, Florida, January 2009
- Common Knowledge does not have the Beth Property, Logic and Information, Schloss Münchenwiler, November 2008
- Canonical Completeness for Infinitary mu-Calculus*, ABCD on mu-Calculus, Lausanne, May 2008
- On Contraction and the Modal Fragment*, Contraction Free Logic, Hamburg, April 2008

- Syntactic Cut-Elimination for Common Knowledge*, Modal Fixed Point Logics, Amsterdam, March 2008
- Syntactic Cut-Elimination for Modal Fixed Point Logics, Logic and Information, Schloss Münchenwiler, March 2008
- Completeness Proofs for the Modal μ -Calculus, Mathematics in a Modern World, Novosibirsk, September 2007
- Improving Semantic Query Answering, Database and Expert Systems Applications, Regensburg, September 2007
- Total Public Announcements, Logical Foundations of Computer Science, New York, June 2007
- Deductive Systems for the Modal μ -Calculus, Temporal Logic and Temporal Reasoning, Schloss Münchenwiler, May 2007
- Infinitary systems for the modal μ -calculus, Workshop on Proof, Computation, Complexity, Swansea, April 2007
- On the Proof Theory of the Modal μ -Calculus, Deduktive Aspekte der Beweistheorie und Informatik, München, December, 2006
- Datenbanken – einfach erklärt*, Fachschaftstagung Informatik, Mathematik und Physik, Thun, November, 2006.
- Cut-free Systems for the Propositional Modal μ -Calculus*, Logic Colloquium, Nijmegen, July, 2006.
- A Formal Model of Data Privacy, Perspectives of System Informatics, Novosibirsk, June 2006.
- A Logical Approach to Data Privacy, Deduktive Aspekte der Beweistheorie und Informatik, Bern, June 2006.
- Probabilistic Description Logic, Workshop on Non-classical Logic: its Mathematics and Philosophy, Bern, October 2005.
- Provable Data Privacy, Database and Expert Systems Applications, Copenhagen, August 2005.
- Probabilistic ABox Reasoning: Preliminary Results, Workshop on Description Logics, Edinburgh, July 2005
- A finitary cut-free axiomatization for stratified modal fixed point logic, Workshop on Proof, Computation, Complexity, Lisboa, July 2005
- Relational Representation of ALN Knowledge Bases, Virtual Multi Conference on Computer Science and Information Systems, April 2005
- Ontology based OLAP, Inference and Deduction, Schloss Münchenwiler, November 2004
- Database Security via Term Models, Swiss Meeting of Young Researchers in Logic, Bern, October 2004
- Canonical Databases under Key Constraints, Inference and Deduction, Schloss Münchenwiler, May 2004
- Das Acquiring System – ein Projektbericht*, Informatik Kolloquium, Universität Bern, June 2002
- Eine denotationelle Semantik für Featherweight Java*, Informatik Kolloquium, Universität Tübingen, October 2000
- Impredicative Overloading in Explicit Mathematics, Logic Colloquium, Paris, July 2000
- Impredikativität und Overloading, Deduktive Aspekte der Beweistheorie und Informatik, Bern, April 2000
- Modelle expliziter Mathematik, Deduktive Aspekte der Beweistheorie und Informatik, Bern, April 1997