ILARIA CANAVOTTO

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ACADEMIC POSITIONS

Nov 2023 - **Postdoctoral Associate**

present Values-Centered Artificial Intelligence Initiative, Philosophy Department and Institute for Advanced

Computer Studies, University of Maryland

Sept 2021 - Postdoctoral Associate

Oct 2023 Philosophy Department, University of Maryland

Nov 2020 - Postdoctoral Researcher

Aug 2021 Institute for Logic, Language and Computation (ILLC), University of Amsterdam

EDUCATION

Nov 2016 - **PhD in Logic**

Dec 2020 Institute for Logic, Language and Computation (ILLC), University of Amsterdam

Oct 2014 - Master in Logic and Philosophy of Science

Sept 2016 Munich Center for Mathematical Philosophy (MCPM), Ludwig-Maximilians University Munich

Oct 2011 - Master in Philosophy (cum laude)

Dec 2013 Catholic University of Milan

Oct 2008 - Bachelor in Philosophy (cum laude)

Dec 2011 Catholic University of Milan

VISITING GRADUATE STUDENT

Fall 2019 Graduate Research Visitor, Philosophy Department, University of Maryland

AWARDS

• E.W. Beth Dissertation Prize 2021 for outstanding PhD dissertations in Logic, Language, and Information, the Association for Logic, Language, and Information (FoLLI)

GRANTS

- **University of Amsterdam Humane AI seed funding 2021-22** (50,000 €). Project: *Responsible Artificial Agents: A Logical Perspective.* Team: Alexandru Baltag, Ilaria Canavotto, Aybüke Özgün.
- ∘ **Travel Grant for PhD Candidates 2019**, Amsterdam University Fund (1,000 €)

PUBLICATIONS

BOOKS

1. Where Responsibility Takes You: Logics of Agency, Counterfactuals and Norms, Lecture Notes in Computer Science, vol. 13228, Springer Cham, 2022, https://doi.org/10.1007/978-3-031-17111-6. (This book contains my PhD thesis, which was published as part of the E.W. Beth Dissertation Prize.)

JOURNAL ARTICLES AND BOOK CHAPTERS

- 2. Reasoning with Inconsistent Precedents, Artificial Intelligence and Law, 2023, https://doi.org/10.1007/s10506-023-09382-7.
- 3. Choice-Driven Counterfactuals (with E. Pacuit), *Journal of Philosophical Logic*, 51, pp. 297-345, **2022**, https://doi.org/10.1007/s10992-021-09629-1.
- 4. **Voluntary Imagination:** A Fine-Grained Analysis (with F. Berto and A. Giordani), *The Review of Symbolic Logic*, 15 (2), pp. 362-387, **2022**, https://doi.org/10.1017/S1755020320000039.
- 5. **An Extensional Mereology for Structured Entities** (with A. Giordani), *Erkenntnis*, 87, pp. 2343-2373, **2022**, https://doi.org/10.1007/s10670-020-00305-5.
- 6. **Causal Agency and Responsibility: A Refinement of STIT Logic** (with A. Baltag and S. Smets), in A. Giordani & J. Malinowski (eds.), *Logic in High Definition*, Trends in Logic (Studia Logica Library), vol. 56, pp. 149-176, **2021**, Springer Cham, https://doi.org/10.1007/978-3-030-53487-5_8.
- 7. **Enriching Deontic Logic** (with A. Giordani), *Journal of Logic and Computation*, 29 (2), pp. 241-263, **2019**, https://doi.org/10.1093/logcom/exy007.
- 8. Il problema dell'intenzionalità e degli oggetti intenzionali: Analisi critica delle proposte di Searle e Crane, *Rivista di Filosofia Neoscolastica*, 105 (1), pp. 17-40, **2013**, http://www.jstor.org/stable/43064153.

CONFERENCE PROCEEDINGS (FULL PAPERS, PEER REVIEWED)

- 9. **The Importance of Intermediate Factors** (with J. Horty), in *Proceedings of the 36th International Conference on Legal Knowledge and Information Systems (JURIX 2023)*, Frontiers in Artificial Intelligence and Applications, IOS Press, pp. 13-22, **2023**, https://doi.org/10.3233/FAIA230941.
- 10. **Inconsistent Precedents and Deontic Logic**, in *Proceedings of the 16th International Conference on Deontic Logic and Normative Systems (DEON 2023)*, pp. 317-332, **2023**, College Publications.
- 11. **Reasoning with Hierarchies of Open-Textured Predicates** (with J. Horty), in *Proceedings of the 19th International Conference on Artificial Intelligence and Law (ICAIL 2023)*, ACM Press, pp. 52-61, **2023**, https://doi.org/10.1145/3594536.3595148.
- 12. **Precedential Constraint Derived From Inconsistent Case Bases**, in *Proceedings of the 35th International Conference on Legal Knowledge and Information Systems (JURIX 2022)*, Frontiers in Artificial Intelligence and Applications, Vol. 362: Legal Knowledge and Information Systems, IOS Press, pp. 23-32, **2022**, https://doi.org/10.3233/FAIA220445.
- 13. **Piecemeal Knowledge Acquisition for Computational Normative Reasoning** (with J. Horty), in *Proceedings of the 2022 AAAI/ACM Conference on AI, Ethics, and Society (AIES'22)*, ACM Press, pp. 171-180, **2022**, https://doi.org/10.1145/3514094.3534182.
- 14. **Normative Conflicts in a Dynamic Logic of Norms and Codes** (with A. Giordani), in *Proceedings of the 14th Conference on Deontic Logic and Normative Systems (DEON 2018)*, pp. 71-89, **2018**, College Publications.
- 15. **Bases for an Action Logic to Model Negative Modes of Actions**, in *The Logica Yearbook 2017*, pp. 13-28, **2018**, College Publications.
- 16. **Basic Action Deontic Logic** (with A. Giordani), in *Proceedings of the 13th Conference on Deontic Logic and Normative Systems (DEON 2016)*, pp. 80-92, **2016**, College Publications.

TALKS

SELECTED INVITED TALKS

Explanation through Legal Case-Based Reasoning

Workshop on Defeasible Reasoning: Work at the Intersection of Ethics and AI, Institute for Safe Autonomy, University of York, York, UK, November 2023.

Workshop on Reasoning about Responsible Agency in AI, University of Amsterdam, Amsterdam, The Netherlands, May 2023.

o Machine Ethics and Precedent-Based Reasoning

Dagstuhl Seminar 23151: Normative Reasoning for AI, Leibniz Center for Informatics, Dagstuhl, Germany, April 2023.

Piecemeal Knowledge Acquisition for Computational Normative Reasoning

UK Research and Innovation (UKRI) Trustworthy Autonomous Systems (TAS) Node in Resilience Seminar, online, January 2023.

Choice-Driven Counterfactuals

Ghent-Brussels Seminars in Logic, History and Philosophy of Science, Ghent University and Free University of Brussels, online, April 2021.

Seminar on Logic and Interactive Rationality (LIRa Seminar), ILLC, University of Amsterdam, online, April 2020.

o Causal Agency and Responsibility: A Refinement of STIT Logic

Seminar on Individual and Collective Reasoning (ICR Seminar), Luxembourg University, online, February 2021. *Philosophy Seminar*, Utrecht University, Utrecht, The Netherlands, March 2019.

Final meeting of the project *Permission, Information and Institutional Dynamics, Obligations, and Rights* headed by O. Roy and P. Kulicki, University of Bayreuth, Bayreuth, Germany, December 2018.

Voluntary Imagination: A Fine-Grained Analysis

LoC Seminar (seminar of the ERC project *Logic of Conceivability* headed by F. Berto), University of Amsterdam, Amsterdam, The Netherlands, February 2019.

• Deontic Logic with Norms: Norm Structure, Dynamics, and Other Developments

Dedicated seminar, Luxembourg University, Luxembourg City, Luxembourg, March 2019.

• Connecting Norms and Ideality in Semantics for Deontic Logic

IUSS Philosophy Seminars: Epistemology of Mathematics and Logic, Istituto Universitario di Studi Superiori (IUSS), Pavia, Italy, December 2018.

• An Extensional Approach to Structured Wholes

Amsterdam Metaphysics Seminar, University of Amsterdam, Amsterdam, The Netherlands, May 2019.

• STIT Imagination Logic: Prospects and Problems

LoC seminar (seminar of the ERC project *Logic of Conceivability* headed by F. Berto), University of Amsterdam, Amsterdam, The Netherlands, April 2018.

• Conflicts in Explicit Dynamic Deontic Logic

REINS/TF-mini-symposium on Deontic Logic, Utrecht University, Utrecht, The Netherlands, June 2017.

• A Multi-Agent Dynamic Action Logic to Model Negative Modes of Actions

3rd Meeting of the project *Permission, Information and Institutional Dynamics, Obligations, and Rights* headed by O. Roy and P. Kulicki, University of Bayreuth, Bayreuth, Germany, February 2017.

• The Concept of Obligation in Deontic Logics of Action

Kickoff Meeting of the Project *Permission, Information and Institutional Dynamics, Obligations, and Rights* headed by O. Roy and P. Kulicki, John Paul II Catholic University of Lublin, Lublin, Poland, February 2016.

CONFERENCE AND WORKSHOP TALKS

• The Importance of Intermediate Factors

36th International Conference on Legal Knowledge and Information Systems (JURIX 2023), Maastricht University, Maastricht, The Netherlands, December 2023.

• Reasoning with Hierarchies of Open-Textured Predicates

19th International Conference on Artificial Intelligence and Law (ICAIL 2023), University of Minho, Braga, Portugal, June 2023.

Precedential Constraint Derived from Inconsistent Case Bases

35th International Conference on Legal Knowledge and Information Systems (JURIX 2022), Saarland University, Saarbrüken, Germany, December 2022.

Introducing Causality in STIT Logic

16th International Congress on Logic, Methodology, and Philosophy of Science and Technology (CLMPST 2019), University of Prague, Prague, Check Republic, August 2019.

Trends in Logic XVIII, Catholic University of Milan, Milan, Italy, September 2018.

Academy Colloquium: Reasoning in Social Context, Royal Netherlands Academy of Arts and Sciences, Amsterdam, The Netherlands, June 2018.

· Causation and Accountability in Dynamic Action Logic

Formal Ethics 2019, Ghent University, Ghent, Belgium, June 2019.

• Normative Conflicts in a Dynamic Logic of Norms and Codes

 $14 th\ International\ Conference\ on\ Deontic\ Logic\ and\ Normative\ Systems\ (DEON\ 2018),\ Utrecht\ University,\ Utrecht,\ The\ Netherlands,\ July\ 2018.$

Trends in Logic XVII, John Paul II Catholic University of Lublin, Lublin, Poland, September 2017.

Logic of Normative Sources

Trends in Logic XVII, John Paul II Catholic University of Lublin, Lublin, Poland, September 2017.

• A Multi-Agent Dynamic Action Logic to Model Negative Modes of Actions

Logica 2017, Academy of Sciences of the Czech Republic, Hejinice Monastery, Czech Republic, June 2017. Logic in Bochum III, Ruhr Universität Bochum, Bochum, Germany, May 2017.

Negation as Conceptual Exclusion

Triennial International Conference of the Italian Society for Logic and Philosophy of Science (SILFS 2017), University of Bologna, Bologna, Italy, June 2017.

o Basic Action Deontic Logic

13th International Conference on Deontic Logic and Normative Systems (DEON 2016), University of Bayreuth, Bayreuth, Germany, July 2016.

• An Extensional Approach to Structured Wholes

Fifth Italian Conference in Analytic Ontology and Metaphysics, University of Padova, Padova, Italy, June 2016.

TEACHING EXPERIENCE

Undergraduate

Fall 2023 PHIL-370: Logical Theory I: Metatheory

University of Maryland, College Park, US.

SHORT COURSES AND SUMMER SCHOOLS

5 Jul 2024	Legal Case-Based Reasoning Law and Logic Summer School, European University Institute, Florence, Italy. One 2.5 hour lecture.
15 Aug 2022- 19 Aug 2022	Conditionals in Game Theory (with E. Pacuit) European Summer School in Logic, Language and Information (ESSLLI 2022), National University of Ireland Galway. Five 90 minute lectures for graduate students.
29 Jul 2019- 3 Aug 2019	Deontic Logic: Foundational Issues MCMP, Ludwig-Maximilians University Munich, Germany. Ten 2 hour lectures for graduate students.

TEACHING ASSISTANT

Spring 2021	Epistemic Paradoxes and Philosophical Puzzles
	Graduate course, ILLC, University of Amsterdam, The Netherlands.
Fall 2020	Dynamic Epistemic Logic
	Graduate course, ILLC, University of Amsterdam, The Netherlands.
Fall 2020	Human(e) AI
	Undergraduate course, University of Amsterdam, The Netherlands.
Spring 2018	Possible Worlds: Logic and Metaphysics
1 0	Graduate course, ILLC, University of Amsterdam, The Netherlands.
Fall 2017	Logic, Knowledge and Science
	Graduate course, ILLC, University of Amsterdam, The Netherlands.
Spring 2014	Truthmakers
- F - G -	Undergraduate course, Catholic University of Milan, Italy.
Spring 2014	Introduction to Logic
1 0	Undergraduate course, Institute of Philosophy, Lugano, Switzerland.

ACADEMIC SERVICE

DEPARTMENTAL SERVICE

- · ARHU committee to create a new BA in Artificial Intelligence, University of Maryland, since Fall 2023.
- o PTK representative, Philosophy Department, University of Maryland, 2021-2023.
- o PhD candidate search committee, Philosophy Department, University of Amsterdam, Fall 2017 and Fall 2019.
- o Postdoctoral researcher search committee, Philosophy Department, University of Amsterdam, Fall 2017.

ORGANIZING ACTIVITIES

Co-organizer:

International workshop Reasoning about Responsible Agency in AI, University of Amsterdam, 2023.

NSF Convergence Accelerator Workshop on the Ethical Design of AIs, University of Maryland, 2022.

DEON seminar series, online, 2021-2023.

Seminar series on Logic and Interactive Rationality (LIRa), ILLC, University of Amsterdam, 2017-2021.

XVIII Trends in Logic Conference, Catholic University, Milan, 2018.

STEERING COMMITTEES

• Member of the steering committee of the Society of Deontic Logic and Normative Systems (DEON), since 2023.

REVIEWING

 Reviewer for: Erkenntnis, Logic and Logical Philosophy, Journal of Applied Logic, Journal of Applied Non-Classical Logics, Journal of Artificial Intelligence Research, Journal of Philosophical Research, Philosophical Studies, Social Choice and Welfare, Studia Logica, Synthese.

 PC member: JURIX 2023 (36th International Conference on Legal Knowledge and Information Systems), CME 2023 (2nd International Workshop on Computational Machine Ethics), DEON 2023 (16th International Conference on Deontic Logic and Normative Systems), CLAR 2021 (International Conference on Logic and Argumentation), DEON 2020/21 (15th International Conference on Deontic Logic and Normative Systems).