Tommaso Moraschini
Department of Philosophy
University of Barcelona
Carrer de Montalegre 6
08001 Barcelona, Spain   `https://moraschini.github.io/index.html`

Born 25.8.1988

Education and qualification
- *PhD in Pure and Applied Logic*, University of Barcelona 6.2016
  Thesis title: Investigations into the role of translations in abstract algebraic logic.
  Supervisors: Professors R. Jansana and J.M. Font
- *Master in Philosophical Sciences*, University of the Studies of Milan, 7.2013
  Thesis title: Some topic in abstract algebraic logic
  Supervisor: Professor S. Bozzi
- *Master in Pure and Applied Logic*, University of Barcelona 7.2012
  Thesis title: The interplay between languages and models in abstract algebraic logic
  Supervisor: Professor J.M. Font

Employment history
2020–present Assistant Professor (tenure track), Department of Philosophy of the University of Barcelona
2018–2019 Senior Research Assistant, Institute of Computer Sciences of the Czech Academy of Science
2016–2017 Research Assistant, Institute of Computer Sciences of the Czech Academy of Science
2013–2016 PhD Student, University of Barcelona

Current position
- Beatriz Galindo fellow at the University of Barcelona (4 years, January 2020–December 2023)

Research interests
- Mathematical Logic
- (Abstract) Algebraic Logic
- Intuitionistic, Modal and Relevance Logics
- Universal Algebra and Duality Theory

Basic scientometric data
- 28 journal papers + 2 conference papers + 1 book chapter + 3 submitted manuscripts

Prizes and awards
- Ada Lettieri award for best research paper or monograph in logic by the Italian Logic Association 2021
- Josef Hlávka award for scientific literature 2019
- Award for Best Young Researchers of Czech Academy of Sciences 2018
- Best PhD Thesis in Logic award from the University of Barcelona 2017

Invited or plenary conference talks (`https://moraschini.github.io/conferences.html`)
8. Profiniteness and spectra of Heyting algebras. Invited talk at the Algebraic Logic special session of the North American Meeting of the ASL, South Bend, Indiana, 2021.
7. On equational completeness theorems. Invited talk at virtUMA, Argentina, 2020.
6. The poset of all logics. Invited talk at TACL 2019, Nice, France, 2019.
5. On interpretations between propositional logics. Invited talk at BLAST2019, Boulder, Colorado, 2019.
4. Relational semantics, ordered algebras, and quantifiers for deductive systems. Invited talk at LATD2018, Bern, Switzerland, 2018.
3. A course in Abstract Algebraic Logic. Invited tutorial at TACL School 2017, Olomouc, Czech Republic, 2017.
2. Classifying Strongly Finite Logics in the Leibniz Hierarchy. Invited talk at the 16th SLALM, Buenos Aires, Argentina, 2014.
1. Logics associated with a quasi-primal algebra. Plenary talk at AAA88, Warsaw, Poland, 2014.

Invited talks at workshops
2. On equational completeness theorems. Invited speaker at the workshop on Duality, Order, (Co)algebras, Topology, and Related topics, Cagliari, Italy, 2021.
1. Varieties of De Morgan monoids and axiomatic extensions of Relevance Logic. First Algebra Week, Siena, Italy, 2018.

Grants (principal investigator)
- Local PI of the Horizon 2020 Marie Skłodowska-Curie RISE project *MOSAIC* 101007627, funded by the European Union, 2021–2024
- PI of the i+D+I research project *The geometry of non-classical logics* PID2019-110843GA-I00, funded by the Spanish Ministry of Science, Innovation and Universities, 2020–2023
- co-PI of the research project *Enhancing human resources in theoretical computer science* PPLZ 100301751, co-funded by the European Union and the Czech Operational Programme Research, Development and Education, 2018–2020

Grants (team member)
- *Research group in non-classical logics* 2017SGR0095, funded by the Agency for Management of University and Research Grants of the Government of Catalonia, 2017–2021
- *Predicate graded logics and their applications in computer science* GA17-04630S, funded by the Czech Science Foundation, 2017–2019
- *Totally ordered monoids* 15-07724Y, funded by the Czech Science Foundation, 2015–2017
- Horizon 2020 Marie Skłodowska-Curie RISE project *SYSMICS* 689176, funded by the European Union, 2016–2018
- *Modelling vague quantifiers in mathematical fuzzy logic* I1897-N25 and GF15-34650L, co-funded by theAustrian Science Fundation and Czech Science Foundation, 2015–2018
- *Center of Excellence-Institute for Theoretical Computer Science* (CE-ITI) GBP202/12/G061, funded by the the Czech Science Foundation, 2012–2018
- *An Order-Based Approach to Non-Classical Propositional and Predicate Logics* GA13-14654S, funded by the Czech Science Foundation, 2013–2016
- *Algebraic Logic and Non-Classical Logics* MTM2011-25747, funded by the Ministry of Science and Innovation of Spain, 2012–2015
- *Research group in non-classical logics* 2009SGR-1433, funded by the Agency for Management of University and Research Grants of the Government of Catalonia, 2014–2016

Committee membership
- Member of the program committee of *Advances in Modal Logic* 2022
- Member of the program committee of *Logic, Algebra and Truth Degrees* 2022
- Chair of program and organizing committee of the *Workshop on Admissible Rules and Unification* 2019
- Member of the organizing committee of *Topology, Algebra and Categories in Logic* 2017
- Member of Spanish evaluation board for research projects
- I served as an external committee member for the Argentinian evaluation board for research projects and for the Italian Association for Logics and its Applications
- I was a committee members in various master and PhD defences

Research supervision
PhD Theses
- D. Fornasiere. Sahlqvist theory for protoalgebraic logics. University of Barcelona, in progress.
- J.J. Wannenburg. Varieties of De Morgan monoids and axiomatic extensions of relevance logic. University of Pretoria, 2020.
Master Theses
- Currently supervising J. Carr and R. Almeida for the University of Amsterdam and S. Cristancho for the University of Barcelona.
- A. Dmitrieva. Positive modal logic beyond distributivity: duality, preservation and completeness. University of Amsterdam, 2021.
- L. Tasiou. Profinite bi-Heyting algebras. University of Amsterdam, 2021.
- D. Fornasiere. Representable Forests and Diamond Systems. University of Amsterdam, 2021.
- M. Martins. Bi-Gödel algebras and co-trees. University of Amsterdam, 2021.
- J. Herrera Hernández. Inconsistency lemmas: an algebraic approach. University of Barcelona, 2020.
- T. Benjamins. Locally finite varieties of Heyting algebras of width 2. University of Amsterdam, 2020.

Teaching experience

- *Abstract Algebraic Logic*. Master of Pure and Applied Logic, University of Barcelona 2021–2022
- *Algebraic Logic*. Master of Pure and Applied Logic, University of Barcelona 2020–2021
- *Orders, Lattices, and Boolean Algebras*. Master of Pure and Applied Logic, University of Barcelona 2020–2021
- *The Algebra of Logic*. June project at the Institute for Logic, Language and Computation, University of Amsterdam and at the University of Verona 2021
- *Algebraic Logic*. June project at the Institute for Logic, Language and Computation, University of Amsterdam 2020

Stays abroad

- Institute of Logic and Computation of Vienna University of Technology (December 2019)
- Institute for Logic, Language and Computation of the University of Amsterdam (October 2019)
- Faculty of Philosophy of the University of Barcelona (January–March 2019)
- Department of Mathematics of University of Pretoria (November 2018)
- Faculty of Philosophy of the University of Barcelona (January–February 2018)
- Department of Mathematics of University of Pretoria (September–October 2017)
- Faculty of Philosophy of the University of Barcelona (January–February 2017)
- Institute of Theory of Information and Automation of the Czech Academy of Sciences (May 2016)
- Department of Mathematics of University of Pretoria (November–December 2015)
- Institute of Theory of Information and Automation of the Czech Academy of Sciences (July 2015)
- Department of Mathematics of University of Pretoria (January–February 2015)

Journal papers

28. N. Bezhanishvili and T. Moraschini. Hereditarily structurally complete intermediate logics: Citkin's theorem via Esakia duality. To appear in *Studia Logica*, 2022.
27. T. Lavička, T. Moraschini and J.G. Raftery. The algebraic significance of weak excluded middle laws. To appear in the *Mathematical Logic Quarterly*, 2022.
26. G. Bezhanishvili, N. Bezhanishvili, T. Moraschini, and M. Stronkowski. Profiniteness and representability of spectra of Heyting algebras. Published online in *Advances in Mathematics*, 2021.
25. T. Moraschini. On equational completeness theorems. Published online in the *Journal of Symbolic Logic*, 2021.
24. R. Jansana and T. Moraschini. The poset of all logics I: Interpretations and lattice structure. Published online in the *Journal of Symbolic Logic*, 2021.
23. R. Jansana and T. Moraschini. The poset of all logics II: Leibniz classes and hierarchy. Published online in the *Journal of Symbolic Logic*, 2021.
22. R. Jansana and T. Moraschini. The poset of all logics III: finitely presentable logics. *Studia Logica*, 109:539-580, 2021.
21. T. Moraschini and J. Wannenburg. Epimorphisms in varieties of Heyting algebras. *Annals of Pure and Applied Logic*, 171(9), 2020.
20. S. Bonzio, T. Moraschini and M. Pra Baldi. Logics of left variable inclusion and Plonka sums of matrices. *Archive for Mathematical Logic*, 60:49-76 , 2021.
19. T. Moraschini, J.G. Raftery, J. Wannenburg. Epimorphisms in varieties of square-increasing residuated structures. *Algebra Universalis*, 82(6), 2021.
18. T. Moraschini, J.G. Raftery, and J.J. Wannenburg. Singly generated quasivarieties and residuated structures. *Mathematical Logic Quarterly*, 66(2):150-172, 2020.
17. T. Moraschini, J.G. Raftery and J.J. Wannenburg. Varieties of De Morgan monoids: covers of atoms. *Review of Symbolic Logic*, 13(2) : 338-374, 2020.
16. T. Moraschini. Varieties of positive modal algebras and structural completeness. *Review of Symbolic Logic*. 12(3):557-599, 2019.
15. T. Moraschini and J.G. Raftery. On prevarieties of logic. *Algebra Universalis*. 80(37) , 2019.
14. T. Moraschini, J.G. Raftery and J.J. Wannenburg. Epimorphisms, definability and cardinalities. *Studia Logica*, 108 : 255–275, 2020.
13. T. Moraschini. On the complexity of the Leibniz hierarchy. *Annals of Pure and Applied Logic*. 170(7):805-824, 2019.
12. P. Cintula, J. Gil-Férez, T. Moraschini and F. Paoli. An abstract approach to multiset consequence relations. *Review of Symbolic Logic*. 12(2):331-371, 2019.
11. T. Moraschini, J.G. Raftery and J.J. Wannenburg. Varieties of De Morgan monoids: minimality and irreducible algebras. *Journal of Pure and Applied Algebra*, 223(7):2780-2803, 2019.
10. T. Moraschini. A logical and algebraic characterization of adjunctions between generalized quasi-varieties. *Journal of Symbolic Logic*, 83(3):899-919, 2018.
9. T. Moraschini. A Study of the Truth Predicates of Matrix Semantics. *Review of Symbolic Logic*, 11(4):780–804, 2018.

8. T. Moraschini. A computational glimpse to the Leibniz and Frege hierarchies. *Annals of Pure and Applied Logic*, 169(1):1-20, 2018.
7. G. Bezhanishvili, T. Moraschini and J. Raftery. Epimorphisms in Varieties of Residuated Structures. *Journal of Algebra*, 492:185-211, 2017.
6. T. Moraschini. The Semantic Isomorphism Theorem in Abstract Algebraic Logic. *Annals of Pure and Applied Logic*, 167(2):1298-1331, 2016.
5. T. Moraschini. On Everywhere Strongly Logifiable Algebras. *Reports on Mathematical Logic*, 50:83-107, 2015.
4. J.M. Font and T. Moraschini. M-Sets and the Representation Problem. *Studia Logica*, 103(3):21-51, 2015.
3. J.M. Font and T. Moraschini. A Note on Congruences of Semilattices with Sectionally Finite Height. *Algebra Universalis*, 72(3):287-293, 2014.
2. J.M. Font and T. Moraschini. Logics of Varieties, Logics of Semilattices, and Conjunction. *Logic Journal of the IGPL*, 22:818-843, 2014.
1. T. Moraschini. An Algebraic Study of Exactness in Partial Contexts. *International Journal of Approximate Reasoning*, 55:457–468, 2014.

Conference papers
2. R. Horčík, T. Moraschini and A. Vidal. An algebraic approach to the valued constraint satisfaction problem. In proceedings of Computer Science in Logic 2017.
1. J.M. Font and T. Moraschini. On the Logics Associated With a Given Variety of Algebras. In proceedings of Trends in Logic XIII, 67-80, 2014.

Book chapters
1. H. Albuquerque, J. M. Font, R. Jansana and T. Moraschini. Truth-Equational Logics, Full Models, and the Frege Hierarchy. In J. Czelakowski, editor, *Don Pigozzi on Abstract Algebraic Logic and Universal Algebra*, Outstanding Contributions to Logic, Springer-Verlag, 16:53-79, 2018.

Submitted manuscripts (all available at `https://moraschini.github.io/publications.html`)
1. J. Gispert, Z. Haniková, T. Moraschini and M. Stronkowski. Structural completeness in many-valued logics with rational constants.

Languages
- Italian, English, Spanish and Catalan (fluent) + French and German (basic)

Softwares
- Leibniz classifier, with A. Vidal   `http://uivty.cs.cas.cz/~amanda/publications.html`