

# Almudena Colacito

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## Professional Experience

- 08/2020 – today **Postdoctoral Researcher.** Laboratoire J. A. Dieudonné, Université Côte d'Azur.  
05/2017 – 07/2020 **Head Assistant.** Mathematisches Institut, Universität Bern.  
09/2016 – 07/2020 **Teaching Assistant.** Mathematisches Institut, Universität Bern.  
02/2016 – 05/2016 **Teaching Assistant.** ILLC, Universiteit van Amsterdam.  
09/2015 – 02/2016 **Student Mentor.** ILLC, Universiteit van Amsterdam.  
01/2014 – 07/2014 **Student Adviser.** Università degli Studi di Trento.

## Education

- 11/2016 – 07/2020 **Ph.D., Mathematics.** Universität Bern  
Thesis: “Order, Algebra, and Structure: Lattice-Ordered Groups and Beyond”  
Supervisor: George Metcalfe  
09/2014 – 08/2016 **M.Sc., Logic.** ILLC Universiteit van Amsterdam  
Thesis: “Minimal and Subminimal Logic of Negation”  
Supervisors: Dick de Jongh and Marta Bílková  
Final grade: Cum Laude  
09/2011 – 09/2014 **B.Sc., Mathematics.** Università degli Studi di Trento  
Thesis: “Automorfismi del Campo Complesso”  
Supervisor: Stefano Baratella  
Final grade: 108/110

## Publications

### Journals

- [1] A. Colacito and V. Marra (2020). **Orders on groups, and spectral spaces of lattice-groups.** Algebra Universalis. To appear.
- [2] M. Bílková and A. Colacito (2020). **Proof theory for positive logic with weak negation.** Studia Logica 108, pp. 649–686.
- [3] A. Colacito and G. Metcalfe (2019). **Ordering groups and validity in lattice-ordered groups.** Journal of Pure and Applied Algebra, 223(12), pp. 5163–5175.
- [4] A. Colacito, D. de Jongh, and A. L. Vargas (2017). **Subminimal negation.** Soft Computing, 21(1), pp. 165–174, Special Issue In Memoriam Franco Montagna.

## Conference Proceedings

- [1] N. Bezhanishvili, A. Colacito, and D. de Jongh (2019). **A study of subminimal logics of negation and their modal companions**. In: A. Silva, S. Staton, P. Sutton, C. Umbach (eds), *Language, Logic, and Computation (TbiLLC 2017)*, LNCS 11456, pp. 21–41, Springer, Berlin.
- [2] A. Colacito and G. Metcalfe (2017). **Proof theory and ordered groups**. In: J. Kennedy, R.J.G.B. de Queiroz (eds), *Logic, Language, Information, and Computation (WoLLIC 2017)*, LNCS 10388, pp. 80–91, Springer, Berlin.

## Book Chapters

- [1] A. Colacito, N. Galatos, G. Metcalfe (2020). **Theorems of alternatives for substructural logics**. To appear in a volume of Springer’s Outstanding Contributions to Logic dedicated to Arnon Avron.

## Theses

- [1] A. Colacito (2020). **Order, Algebra, and Structure: Lattice-Ordered Groups and Beyond**.
- [2] A. Colacito (2016). **Minimal and Subminimal Logic of Negation**. M.Sc. Thesis. ILLC Master of Logic Series MoL-2016-14, Universiteit van Amsterdam.

## Selected Research Visits

- November 2018 **Université Côte d’Azur, Nice**. Visiting Mai Gehrke.
- July 2018 **University of Denver, Denver**. Visiting Nikolaos Galatos.
- January 2018 **Vanderbilt University, Nashville**. Visiting Constantine Tsinakis.
- January 2017 **La Trobe University, Melbourne**. Visiting Tomasz Kowalski.

## Presentations

### Invited Talks

- [1] *Nilpotence, Semilinearity and the Hamiltonian Property*, Shanks Workshop on Ordered Algebras and Logic 2020, Vanderbilt University, Nashville, March 2020.
- [2] *Semantic and Proof-Theoretic Aspects of Subminimal Negation*, Dick de Jongh’s 80th Birthday Workshop, ILLC Universiteit van Amsterdam, Amsterdam, November 2019.
- [3] *Orders on Groups, and Spectral Spaces of Lattice-Ordered Groups*, Second Algebra Week, Università degli Studi di Siena, Siena, June 2019.
- [4] *The Topological Space of Pre-Orders on Abelian Groups*, International Workshop on Topological Methods in Logic VI, Ilia State University, Tbilisi, July 2018.
- [5] *Ordering Groups and Validity in Lattice-Ordered Groups*, SYSMICS Workshop on Geometry and Non-Classical Logics, Università degli Studi di Salerno, Fisciano, September 2017.
- [6] *Generalized Heyting Algebras with a Unary Operator*, International Workshop on Topological Methods in Logic V, Ilia State University, Tbilisi, June 2016.

## Local Seminar Talks

- [1] *From Right Orders to Lattice-Ordered Groups, and Back*, Departamento de Matemáticas, Universidad Autónoma de Madrid, December 2019.
- [2] *From Orders on Groups to Spectra of  $\ell$ -Groups, and Back*, Laboratoire J. A. Dieudonné, Université Côte d'Azur, Nice, November 2018.
- [3] *Ordering Theorems and Validity of Equations*, La Trobe University, Melbourne, February 2017.
- [4] *Subminimal Logics of Negation: a Sequent Calculus System*, Universität Bern, Bern, March 2016.
- [5] *Subminimal Logics of Negation*, ILLC Universiteit van Amsterdam, Amsterdam, March 2016.

## Contributed Talks

- [1] *Universal Objects for Orders on Groups: Towards a Correspondence Theory*, XXI Congresso dell'Unione Matematica Italiana, Università degli Studi di Pavia, Pavia, September 2019.
- [2] *Orders on Groups: an Approach through Spectral Spaces*, Topology, Algebra, and Categories in Logic, Laboratoire J. A. Dieudonné, Université Côte d'Azur, Nice, June 2019.
- [3] *Universal Objects for Orders on Groups, and their Dual Spaces*, SYSMICS 2019, Universiteit van Amsterdam, Amsterdam, January 2019.
- [4] *Theorems of Alternatives: an Application to Densifiability*, SYSMICS 2019, Universiteit van Amsterdam, Amsterdam, January 2019.
- [5] *From  $\ell$ -Groups to Residuated Lattices: Hamiltonian and Nilpotent Varieties*, BLAST 2018, University of Denver, Denver, August 2018.
- [6] *Hamiltonian and Nilpotent Residuated Lattices*, Algebra and Substructural Logics, Università degli Studi di Cagliari, Dipartimento di Pedagogia, Psicologia e Filosofia, Cagliari, June 2018.
- [7] *Theorems of the Alternative in Substructural Logics*, PhDs in Logic X, Institute of Philosophy of the Czech Academy of Sciences, Prague, May 2018.
- [8] *An Ordering Condition for Groups*, Topology, Algebra, and Categories in Logic, Charles University, Prague, June 2017.
- [9] *Ordered Groups and Proof Theory*, Algebra and Coalgebra meet Proof Theory VIII, University of Strathclyde, Glasgow, April 2017.
- [10] *Right Orders on Free Groups and the Word Problem for Free  $\ell$ -Groups*, 93rd Workshop on General Algebra, Berner Fachhochschule, Bern, February 2017.
- [11] *A Sequent Calculus for Minimal and Subminimal Logic of Negation*, Syntax Meets Semantics SYSMICS 2016, Universitat de Barcelona, Barcelona, September 2016.

## Grants and Awards

- 2020     **SNSF Early Postdoc.Mobility Fellowship.** Grant Nr. 195473
- 2017     **Premio AILA 3+2.** Prize for the best Master theses in Logic awarded by the Italian Association for Logic and its Applications (AILA)
- 2015     **Premio di merito.** Merit Prize awarded by the University of Trento on the basis of the overall B.Sc. results

## Teaching

### Teaching Assistant

SS2020	<b>Mathematische Logik und Modelltheorie</b>	Universität Bern
FS2019	<b>Model Theory</b>	Universität Bern
SS2019	<b>Mengenlehre (Set Theory)</b>	Universität Bern
FS2018	<b>Mathematik 1 für Naturwissenschaften</b>	Universität Bern
SS2018	<b>Ordered Groups</b>	Universität Bern
FS2017	<b>Mathematik 1 für Naturwissenschaften</b>	Universität Bern
SS2017	<b>Mathematik 2 für Naturwissenschaften</b>	Universität Bern
FS2016	<b>Universal Algebra</b>	Universität Bern
SS2016	<b>Axiomatic Set Theory</b>	Universiteit van Amsterdam

### Other Activities

- Reviewer for: **Logic and Logical Philosophy**; **Archive for Mathematical Logic**; **Studia Logica**; **Journal of Logic and Computation**; **Fuzzy Sets and Systems**; **Soft Computing**; **Bulletin of the Section of Logic**. Reviewer for the **Logic Journal of the IGPL** (Special Issue: Non-classical Modal and Predicate Logics). Reviewer for **Logic in Computer Science** (LICS 2019). Reviewer for **Foundations of Software Science and Computation Structures** (FoSSaCS 2020).
- 2016–2020. Board member of the **Swiss Graduate Society for Logic and Philosophy of Science**.
- Member of the Organizing Committee of **PhDs in Logic XI**, Bern, Switzerland, April 2019.
- Member of the Organizing Committee of **SYSMICS 2019**, Amsterdam, The Netherlands, January 2019.
- Member of the Organizing Committee of **Advances in Modal Logic** (AiML 2018), Bern, Switzerland, August 2018.
- Member of the Organizing Committee of **Logic, Algebra and Truth Degrees** (LATD 2018), Bern, Switzerland, August 2018.
- Member of the Organizing Committee of the second summer school for the **EU RISE project SYSMICS**, Les Diablerets, Switzerland, August 2018.
- Member of the Organizing Committee of the **12th International Tbilisi Symposium on Language, Logic and Computation** (TbiLLC 2017), Lagodekhi, Georgia, September 2017.
- Member of the Organizing Committee of the **93rd Workshop on General Algebra** (AAA93), Bern, Switzerland, February 2017.
- Member of: **Unione Matematica Italiana (UMI)**; **Associazione Italiana di Logica e sue Applicazioni (AILA)**; **American Mathematical Society (AMS)**.

### Languages

Italian	Native
English	Fluent
German	Basic