

# Marco Abbadini

POSTDOCTORAL RESEARCHER

University of Birmingham, School of Computer Science, University Rd W, Birmingham B15 2TT, UK

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## Education and academic titles

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### Marie Skłodowska Curie Postdoctoral Fellowship • Computer Science

2023/09/01 – present

UNIVERSITY OF BIRMINGHAM, UK. DEPARTMENT OF COMPUTER SCIENCE.

- Project: *DCPOS: Dualities via ComPactness, Openness and their Symmetry*.
- Supervisor: Prof. Achim Jung.

### PostDoc • Mathematics

2020/12/01 – 2023/08/31

UNIVERSITY OF SALERNO, ITALY. DEPARTMENT OF MATHEMATICS.

- Project: *Łukasiewicz logic, MV-algebras and duality*.
- Supervisor: Prof. Luca Spada.

### PhD • Mathematics

2017/09/25 – 2021/04/09

UNIVERSITY OF MILAN, ITALY. DEPARTMENT OF MATHEMATICS.

- Academic title awarded: “Dottore di Ricerca in Scienze Matematiche” (Degree of Doctor of Philosophy in Mathematical Sciences).
- Title of the thesis: *On the axiomatisability of the dual of compact ordered spaces*.
- Advisor: Prof. Vincenzo Marra.
- Date of defense: 9 April 2021.
- Final grade: Excellent with honours.
- PhD defense committee:
  1. G. Rosolini (Chairman – University of Genoa),
  2. S. J. van Gool (Secretary – IRIF, Université Paris-Cité),
  3. G. Bezhanisvili (New Mexico State University).
- Three years, fully funded by the University of Milan.
- Abstract published in the Bulletin of Symbolic Logic. DOI: 10.1017/bsl.2021.54.

### MS • Mathematics

2015/11/01 – 2017/07/19

UNIVERSITY OF MILAN, ITALY. DEPARTMENT OF MATHEMATICS.

- Academic title awarded: “Dottore Magistrale in Matematica” (Master Degree in Mathematics).
- Title of the thesis: *The algebraic structure of probability measures and expectations*.
- Advisor: Prof. Vincenzo Marra (Department of Mathematics, University of Milan, Italy).
- Date of graduation: 19 July 2017.
- Final grade: 110/110 cum laude.
- Erasmus+: Semester abroad at the University of Bonn, Germany (Spring 2015/16).
- Erasmus+: Semester abroad at the University of Stuttgart, Germany (Fall 2016/17).

- Academic title awarded: “Dottore in Matematica” (Bachelor Degree in Mathematics).

## Publications

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### PUBLICATIONS IN INTERNATIONAL PEER-REVIEWED JOURNALS

1. M. Abbadini, P. Aglianò, S. Fioravanti. Varieties of MV-monoids and positive MV-algebras. *Journal of Algebra*, 677:690-744 (2025). DOI: 10.1016/j.jalgebra.2025.04.027.
2. M. Abbadini, F. Guffanti. Quantifier-free formulas and quantifier alternation depth in doctrines. *Journal of Pure and Applied Algebra*, 229(8), 108004. DOI: 10.1016/j.jpaa.2025.108004.
3. M. Abbadini, D. Hofmann. Barr-coexactness for metric compact Hausdorff spaces. *Theory and Applications of Categories*, 44(6):196-226 (2025). URL: <http://www.tac.mta.ca/tac/volumes/44/6/44-06abs.html>.
4. M. Abbadini, V. Marra, L. Spada. Stone-Gelfand duality for metrically complete lattice-ordered groups. *Advances in Mathematics*, 461:110067 (2025). DOI: 10.1016/j.aim.2024.110067.
5. M. Abbadini, G. Bezhanishvili, L. Carai. Vietoris endofunctor for closed relations and its de Vries dual. *Topology Proceedings*, 64:213-250 (2024). URL: <https://topology.nipissingu.ca/tp/reprints/v64/>.
6. M. Abbadini, I. Di Liberti. Duality for coalgebras for Vietoris and monadicity. *Journal of Symbolic Logic*. To appear. DOI: 10.1017/jsl.2024.14.
7. M. Abbadini, G. Bezhanishvili, L. Carai. MacNeille completions of subordination algebras. *Cahiers de Topologie et Géométrie Différentielle Catégoriques*, 65(2):151-199 (2024). URL: <https://cahierstgdc.com/wp-content/uploads/2024/04/ABBADINI-AI-LXV-2.pdf>.
8. M. Abbadini, G. Bezhanishvili, L. Carai. A generalization of de Vries duality to closed relations between compact Hausdorff spaces. *Topology and its Applications*, 337:108641 (2023). DOI: 10.1016/j.topol.2023.108641.
9. M. Abbadini, L. Reggio. Barr-exact categories and soft sheaf representations. *Journal of Pure and Applied Algebra*, 227(12):107413 (2023). DOI: 10.1016/j.jpaa.2023.107413.
10. M. Abbadini, P. Jipsen, T. Kroupa, S. Vannucci. A finite axiomatization of positive MV-algebras. *Algebra Universalis*, 83:28 (2022). DOI: 10.1007/s00012-022-00776-3.
11. M. Abbadini, L. Spada. Are locally finite MV-algebras a variety? *Journal of Pure and Applied Algebra*, 226(4):106858 (2022). DOI: 10.1016/j.jpaa.2021.106858.
12. M. Abbadini. Equivalence à la Mundici for commutative lattice-ordered monoids. *Algebra Universalis*, 82:45 (2021). DOI: 10.1007/s00012-021-00736-3.
13. M. Abbadini, L. Reggio. On the axiomatisability of the dual of compact ordered spaces. *Applied Categorical Structures*, 28(6):921-934 (2020). DOI: 10.1007/s10485-020-09604-y.
14. M. Abbadini. Operations that preserve integrability, and truncated Riesz spaces. *Forum Mathematicum*, 32(6): 1487-1513 (2020). DOI: 10.1515/forum-2018-0244.

15. M. Abbadini. Dedekind  $\sigma$ -complete  $\ell$ -groups and Riesz spaces as varieties. *Positivity*, 24(4):1081–1100 (2020). DOI: 10.1007/s11117-019-00718-9.
16. M. Abbadini. The dual of compact ordered spaces is a variety. *Theory and Applications of Categories*, 34(44):1401–1439 (2019). URL: <http://www.tac.mta.ca/tac/volumes/34/44/34-44abs.html>.

#### PROCEEDINGS IN INTERNATIONAL PEER-REVIEWED CONFERENCES

17. M. Abbadini, F. Di Stefano, L. Spada. Unification in Łukasiewicz logic with a finite number of variables. In *Information Processing and Management of Uncertainty in Knowledge-Based Systems*, 1239:622–633. Springer International Publishing, 2020. DOI: 10.1007/978-3-030-50153-2\_46.

#### PREPRINTS

18. M. Abbadini, A. Přenosil. Duality for finitely valued algebras Preprint available at arXiv:2505.11490.
19. M. Abbadini, L. Spada. The unification type of Łukasiewicz logic with a bounded number of variables. Preprint available at arXiv:2504.19011.
20. M. Abbadini, F. Guffanti. Freely adding one layer of quantifiers to a Boolean doctrine. Preprint available at arXiv:2410.16328.

## Talks

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#### INVITED PLENARY TALKS AT INTERNATIONAL CONFERENCES

1. [Boolean algebras, Lattices, Universal Algebra, Set Theory, Topology 2023](#), University of North Carolina at Charlotte, NC, USA. (17 May 2023)  
*Positive MV-algebras.*

#### INVITED TALKS AT SPECIAL SESSIONS IN INTERNATIONAL CONFERENCES

2. [2024 Association for Symbolic Logic North American Annual Meeting](#). Iowa State University, IA, USA. Invited to the Special Session on Algebraic Logic. (15 May 2024)  
*A duality for metrically complete lattice-ordered groups.*

#### INVITED TALKS AT INTERNATIONAL WORKSHOPS

3. [Third Algebra Week \(2023\)](#), University of Siena, Italy. (5 July 2023)  
*Positive subreducts of MV-algebras.*
4. [Duality, Order, \(Co\)algebras, Topology and Related topics](#), online. (7 July 2021)  
*Unital commutative distributive  $\ell$ -monoids and their unit intervals.*
5. [Third Algebra Week \(2020\)](#), University of Siena, Italy. (June 2020) (Cancelled due to COVID-19 pandemic.)  
*Equivalence à la Mundici for lattice-ordered monoids.*

#### INVITED TALKS AT NATIONAL WORKSHOPS

6. [4<sup>th</sup> Southern and Midlands Logic Seminar](#), University of Birmingham, UK. (13 December 2023)  
*Natural dualities.*

## CONTRIBUTED TALKS AT INTERNATIONAL CONFERENCES

7. [Logic, Algebra and Truth Degrees \(LATD2025\)](#), University of Siena, Italy. (Upcoming: July 2024)  
*The algebraic structure of spaces of integrable function.*
8. [Logic Colloquium 2025](#), TU Wien, Vienna, Austria (Upcoming: July 2024)  
*An algebraic version of Herbrand's theorem.*
9. [International Workshop on Topological Methods in Logic \(ToLo 7\)](#), Tbilisi, Georgia. (25 June 2025)  
*The unification type of Łukasiewicz logic with a bounded number of variables.*
10. [107th Workshop on General Algebra AAA107](#), Bern, Switzerland. (21 June 2025)  
*The algebraic structure of spaces of integrable functions.*
11. [110<sup>th</sup> Peripatetic Seminar on Sheaves and Logic \(PSSL 110\)](#), Tallinn, Estonia. (3 May 2025)  
*Barr-coexactness of metric compact Hausdorff spaces.*
12. [38<sup>th</sup> Summer Conference on Topology and its Applications](#), University of Coimbra, Portugal. (9 July 2024)  
*Vietoris endofunctor for closed relations.*
13. [Topology, Algebra and Categories in Logic 2024](#), University of Barcelona, Spain. (4 July 2024)  
*Vietoris endofunctor for closed relations and its de Vries dual.*
14. [104<sup>th</sup> Workshop on General Algebra "Arbeitstagung Allgemeine Algebra"](#), South-West University "Neofit Rilsk", Blagoevgrad, Bulgaria. (10 February 2024)  
*Natural dualities with an infinite dualizing object.*
15. ["Modalities in Substructural Logics: Theory, Methods and Applications" Workshop 2023](#), Vienna, Austria. (29 September 2023)  
*Stone duality for finitely valued algebras with a near-unanimity term.*
16. [108<sup>th</sup> Peripatetic Seminar on Sheaves and Logic](#), University of Palermo, Terrasini, Italy. (17 September 2023)  
*Soft sheaf representations in Barr-exact categories.*
17. [Logic, Algebra and Truth Degrees 2023](#), Ivane Javakhishvili State University, Tbilisi, Georgia. (11 September 2023)  
*Free extensions.*
18. [Logic Colloquium 2023](#), University of Milan, Italy. (8 June 2023)  
*Jónsson-Tarski duality beyond dimension 0.*
19. [3<sup>rd</sup> ItaCa Workshop](#), University of Pisa, Italy. (21 December 2022)  
*Comonadicity over Set of coalgebras of Vietoris functors.*
20. [Topology, Algebra and Categories in Logic 2022](#), University of Coimbra, Portugal. (24 June 2022)  
*An approach à la de Vries for compact Hausdorff spaces and closed relations.*
21. [Category Theory 20→21](#), University of Genoa, Italy. (1 September 2021)  
*The opposite of the category of compact ordered spaces is monadic over the category of sets.*
22. [Boolean Algebras, Lattices, Universal Algebra, Set Theory, Topology 2021](#), New Mexico State University, Las Cruces, NM, USA, online. (13 June 2021)  
*The opposite of the category of compact ordered spaces as an infinitary variety.*

23. [99<sup>th</sup> Workshop on General Algebra “Arbeitstagung Allgemeine Algebra”](#), University of Siena, Italy. (21 February 2020)  
*Priestley duality above dimension zero: algebraic axiomatisability of the dual of compact ordered spaces.*
24. [Topology, Algebra, and Categories in Logic 2019](#), University of Nice, France. (20 June 2019)  
*Norm-complete Abelian  $\ell$ -groups: equational axiomatization.*
25. [PhDs in Logic XI](#), University of Bern, Switzerland. (25 April 2019)  
*Stone-Gelfand duality for groups.*
26. [Boolean Algebras, Lattices, Universal Algebra, Set Theory, Topology 2018](#), University of Denver, CO, USA. (10 August 2018)  
*Operations that preserve integrability, and truncated Riesz spaces.*

#### CONTRIBUTED TALKS AT NATIONAL CONFERENCES

27. [XXVIII Logic Meeting of the Italian Association of Logic and its Applications](#), Udine, Italy. (4 September 2024)  
*Vietoris endofunctor for closed relations and its de Vries dual.*
28. [XXVII Meeting of the Italian Association for Logic and its applications \(AILA\)](#), Università della Campania “L. Vanvitelli”, Caserta, Italy. (13 September 2023)  
*Duality for metrically complete Abelian  $\ell$ -groups.*

#### TALKS AT LOCAL SEMINARS

29. [University of Birmingham](#), UK. (5 June 2025)  
*On de Groot and Lawson self-dualities.*
30. [University of Birmingham](#), UK. (8 May 2025)  
*Freely adding a layer of Heyting implication to a distributive lattice.*
31. [University of Salerno](#), Italy. (24 April 2025)  
*An algebraic version of Herbrand’s theorem.*
32. [Université catholique de Louvain](#), Louvain-la-Neuve, Belgium. Category Theory Seminar. (7 January 2025)  
*Coalgebraic flavour of metric compact Hausdorff spaces.*
33. [University of Milan](#), Italy. Logic, Algebra and Categories. (31 October 2024)  
*Quantifier-free fragments and quantifier alternation depth in doctrines.*
34. [University of Manchester](#), UK. (9 October 2024)  
*Quantifier-free fragments and quantifier alternation depth in doctrines.*
35. [University of Padua](#), Italy. (2 May 2024)  
*Quantifier alternation depth in universal Boolean doctrines.*
36. [University of Birmingham](#), UK. (23 November 2023)  
*An abstraction of the unit interval with Euclidean topology and denominators.*
37. [Université catholique de Louvain](#), Louvain-la-Neuve, Belgium. Category Theory Seminar. (13 November 2023)  
*Soft sheaf representations in Barr-exact categories.*

38. [University of Bern](#), Switzerland. Bern Logic Seminar. (20 April 2023)  
*Positive MV-algebras.*
39. [University of the Witwatersrand](#), Johannesburg, South Africa. (30 March 2023)  
*Unique embeddability property.*
40. [Paris-Saclay University](#), Laboratoire Méthodes Formelles (LMF), Paris, France, online. (4 January 2023)  
*An abstraction of the unit interval with denominators.*
41. [University of Padua](#), Italy, online. (5 December 2022)  
*Dualities for compact Hausdorff spaces.*
42. [Université Paris Cité](#), IRIF, France. Sémantique. (25 November 2022)  
*A generalization of de Vries duality to closed relations between compact Hausdorff spaces.*
43. [University of Amsterdam](#), Institute for Logic, Language and Computation, Netherlands, online. Lectures on Logic and its Mathematical Aspects (LLAMA seminar). (11 May 2022)  
*Free extension for universal algebras.*
44. [New Mexico State University](#), USA, online. Algebra Seminar. (14 March 2022)  
*Free extension for universal algebras.*
45. [University of Caserta](#), Italy. Model theory seminar. (14 February 2022)  
*Positive MV-algebras.*
46. [University of Denver](#), USA, online. Nonclassical Logic Webinar. (5 May 2021)  
*Is the category of locally finite MV-algebras equivalent to an equational class?*
47. [University of Denver](#), USA, online. Nonclassical Logic Seminar. (8 May 2020)  
*Equivalence à la Mundici for lattice-ordered monoids.*
48. [University of Salerno](#), Italy. (23 January 2020)  
*Equivalence à la Mundici for lattice-ordered monoids.*
49. [University of Nice](#), France. Groupe de travail ‘Dualité de Stone, langages formels et logique’. (3 October 2019)  
*On concrete dual adjunctions.*
50. [Czech Academy of Sciences](#), Prague, Czech Republic. Applied Mathematical Logic Seminar. (6 February 2019)  
*The dual of compact ordered spaces is a variety.*
51. [University of Salerno](#), Italy. (13 December 2018)  
*Archimedean Cauchy-complete MV-algebras form a variety.*
52. [University of Milan](#), Italy. Workshop “PhD<sup>2</sup> - PhD days” (6 July 2018)  
*Operations that preserve integrability: characterization and related algebraic structures.*

#### SEMINARS AND COURSES FOR STUDENTS

53. [University of Birmingham](#), UK. Seminar for PhD students and PostDoc Researchers in Computer Science. (25 February 2025)  
*The algebras of classical first-order logic.*

54. [University of Birmingham](#), UK. Seminar for PhD students and PostDoc Researchers in Computer Science. (11 February 2025)  
*The sequent calculus whose semantics admits the empty structure.*
55. [University of Birmingham](#), UK. 3-hour course for PhD Students and PostDoc Researchers in Computer Science. (17 and 24 October 2024)  
*Stone duality.*
56. [New Mexico State University](#), USA, online. Seminar for graduate students in Mathematics. (24 March 2022)  
*Lawvere's algebraic theories.*
57. [University of Salerno](#), Italy. Seminar for students of the course "Universal Algebra". (28 May 2021)  
*The algebraic approach to Constraint Satisfaction Problems (CSP).*
58. [University of Milan](#), Italy. Seminar for students of the course "Algebra 2". (5 December 2019)  
*The Rubik's Cube. Ideas to create a solution strategy.*

#### OTHER TALKS AND POSTERS

59. [Autumn school "Proof and Computation"](#), Fischbachau, Germany. 5-minute lightning talk. (19 September 2024)  
*Algebras of logic, step-by-step.*
60. [XXI Congresso dell'Unione Matematica Italiana](#), University of Pavia, Italy. Poster. (2 September 2019)  
*Dualità di Stone-Gelfand per i gruppi.*

## Outreach

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- M. Abbadini. *Attraverso lo specchio*. Outreach blog post on [Maddmaths!](#) on Stone duality for Boolean algebras and recent developments. Link. (6 May 2025)

## Teaching Experience

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|              | <p><b>Teaching assistant.</b> <i>University of Salerno, Italy. Department of Chemistry and Biology.</i></p> <ul style="list-style-type: none"> <li>• Course: <i>Mathematical Methods for Environmental Sciences.</i></li> <li>• For students in the first year of the bachelor's degree in Environmental Sciences.</li> <li>• Tasks: exercise classes.</li> <li>• 20 h.</li> </ul> |
| Fall 2022/23 |  |
|              | <p><b>Teaching assistant.</b> <i>University of Salerno, Italy. Department of Mathematics.</i></p> <ul style="list-style-type: none"> <li>• Course: <i>Mathematical Logic.</i></li> <li>• For students in the third year of the bachelor's degree in Mathematics.</li> <li>• Tasks: exercise classes.</li> <li>• 20 h.</li> </ul>   |
| Fall 2022/23 |  |

**Co-supervision of Bachelor thesis in Mathematics.** *University of Salerno, Italy. Department of Mathematics.*

- 24 Oct 2022
- Title: *Universal constructions in Algebra and in Category Theory.*
  - Student: Chiara Carratù.
  - Supervisor: Prof. Luca Spada.
  - Date of defense: 24 October 2022.

**Teaching assistant.** *University of Salerno, Italy. Department of Mathematics.*

- Fall 2021/22
- Course: *Mathematical Logic.*
  - For students in the third year of the bachelor's degree in Mathematics.
  - Tasks: exercise classes.
  - 20 h.

**“Cultore della materia”.** *University of Salerno, Italy. Department of Computer Science.*

- 2021/2022
- Course: *Discrete Mathematics.*
  - For students in the first year of the bachelor's degree in Computer Science.
  - Tasks: exam assistant (2h).

**Adjunct Professor.** *University of Salerno, Italy. Department of Chemistry and Biology.*

- Fall 2021/22
- Course: *Mathematics 1.*
  - For students in the first year of the bachelor's degree in Environmental Sciences.
  - Joint with Prof. Serafina Lapenta.
  - Tasks: classes (16 h), office hours, preparation and evaluation of written exams, conduction of oral examinations.

**Co-supervision of Bachelor thesis in Mathematics.** *University of Salerno, Italy. Department of Mathematics.*

- 28 Sept  
2021
- Title: *Lawvere's theories: an algebraic approach to Universal Algebra.*
  - Student: Maria Bevilaqua.
  - Supervisor: Prof. Luca Spada.
  - Date of defense: 28 September 2021.

**“Cultore della materia”.** *University of Salerno, Italy. Department of Chemistry and Biology.*

- 2021/2022
- Course: *Mathematics 1.*
  - For students in the first year of the bachelor's degree in Environmental Sciences.
  - Tasks: exam assistant.



- Teaching Assistant.** *University of Milan, Department of Mathematics.*
- Course: *Algebra 2.*
  - For students in the second year of the bachelor's degree in Mathematics.
- Fall 2019/2020
- Tasks: exercise classes (28h), office hours (3h), exam assistant (4h).

## Awards, Scholarships, Qualifications

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- 2024 **Abilitazione Scientifica Nazionale - Seconda Fascia.** Validity: until 2035.
- 2023-2025 **Marie Skłodowska Curie Individual Fellowship.** Host institution: School of Computer Science of the University of Birmingham, UK. Scientific Area: Mathematics. Awarded by the European Union under the Horizon 2020 Programme, and delivered by UK Research and Innovation.
- 2023 **Scholarship to conduct one month of research.** Host institution: School of Computer Science of the University of Birmingham, UK. Awarded by the Italian National Institute of High Mathematics 'Francesco Severi' (INDAM). Renounced.
- 2023 **Qualification aux fonctions de maître de conférences en Mathématiques.** Validity: until 2027/12/31.
- 2023 **Qualification aux fonctions de maître de conférences en Informatique.** Validity: until 2027/12/31.
- 2017 – 2020 **PhD scholarship.** Three years, fully funded. Awarded by the University of Milan.
- Fall 2016 **Erasmus scholarship.** One Semester. Awarded by the University of Milan, on behalf of the E.U.
- Spring 2016 **Erasmus scholarship.** One Semester. Awarded by the University of Milan, on behalf of the E.U.
- 2012/09/11 **Award for the enrolment in the graduate programme in Mathematics.** Awarded by the Italian National Institute of High Mathematics 'Francesco Severi' (INDAM). Awarded on a national basis to the 80 most promising Bachelor's students in Mathematics in their first year, based on a written test.

## Participation in research projects

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### DCPOS: Dualities via ComPactness, Openness and their Symmetry

2023 Sep – Present

UNIVERSITY OF BIRMINGHAM, UK

- Role: Experienced Researcher.
- Marie Skłodowska Curie PostDoctoral Individual Fellowship, EU Horizon 2020, delivered by the UK Research and Innovation (UKRI) under the UK government's Horizon Europe funding guarantee. Grant number EP/Y015029/1.

## **MOSAIC: Modalities in Substructural Logics: Theory, Methods and Applications**

2021 Dec – 2023 Sep

UNIVERSITY OF SALERNO, ITALY

- Role: Team member.
- Funded by the European Union, Rise-MSCA-2020, Project 101007627.
- Within this project I conducted the following secondments:
  - 2-month research visit to M. A. Moshier, Chapman University, Orange, CA, USA (2022).
  - 1-month research visit to C. van Alten, University of the Witwatersrand, Johannesburg, South Africa (2023).

## **Theory and applications of resource sensitive logics**

2019 Dec – 2022 Dec

UNIVERSITY OF SALERNO, ITALY

- Role: Team member.
- Funded by the Italian Ministry of University and Research, PRIN project n. 20173WKCM5.

## **Organisation of conferences and seminar series**

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### **Series of seminars in logic**

2023/04/17 – 2023/06/17

DEPARTMENT OF MATHEMATICS, UNIVERSITY OF SALERNO, ITALY

- Role: organizer.
- 6 seminars + 1 final workshop.

### **Conference “LATD 2022 and MOSAIC 2022 Kick Off Meeting”**

2022/09/05 – 2022/09/10

PAESTUM, ITALY

- Role: organizer.
- International conference (84 participants).

### **Workshop “PhD<sup>2</sup>ays 2020”**

2020/12/09 – 2020/12/11

UNIVERSITY OF MILAN, ITALY (ONLINE)

- Role: organizer.
- Local workshop, in which PhD students expose their research to postgraduate students (~ 35 participants).

## **Visits**

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2025 **Czech Academy of Sciences, Prague, Czech Republic. Institute of Computer Science.** Visiting A. Přenosil and W. Poiger. 5 days.

2025 **Université catholique de Louvain, Louvain-la-Neuve, Belgium. Institut de Recherche en Mathématique et Physique.** Visiting M. Gran and delivering the talk “Coalgebraic flavour of metric compact Hausdorff spaces”. 4 days.

- 2024 **University of Aveiro, Portugal. Department of Mathematics.** Visiting D. Hofmann. 5 days.
- 2024 **University of Luxembourg, Luxembourg. Department of Mathematics.** Visiting F. Guffanti. 3 days.
- 2024 **Université catholique de Louvain, Louvain-la-Neuve, Belgium. Institut de Recherche en Mathématique et Physique.** Visiting M. Gran and delivering the talk “Soft sheaf representations in Barr-exact categories”. 2 days.
- 2023 **University of Bern, Switzerland. Mathematisches Institut.** Visiting G. Metcalfe and delivering the talk “Positive MV-algebras”. 3 days.
- 2023 **University of the Witwatersrand, Johannesburg, South Africa. Department of Computer Science.** Visiting C. van Alten and delivering the talk “Unique embeddability property”.  
Secondment within the MSCA–RISE research project “Mosaic” (Modalities in Substructural Logics: Theory, Methods and Applications). 1 month.
- 2023 **University of Aveiro, Portugal. Department of Mathematics.** Visiting D. Hofmann. 8 days.
- 2022 **Université Paris Cité, Paris, France. Institut de Recherche en Informatique Fondamentale (IRIF).** Visiting S. van Gool and delivering the talk “A generalization of de Vries duality to closed relations between compact Hausdorff spaces”. 3 days.
- 2022 **Chapman University, Orange, CA, USA. Department of Mathematics.** Visiting M. A. Moshier.  
Secondment within the MSCA–RISE research project “Mosaic” (Modalities in Substructural Logics: Theory, Methods and Applications). 2 months.
- 2022 **Oxford University, UK. Department of Computer Science.** Visiting L. Reggio. 5 days.
- 2020 **University of Salerno, Italy. Department of Mathematics.** Visiting L. Spada and delivering the talk “Equivalence à la Mundici for lattice-ordered monoids”. 4 days.
- 2019 **University of Nice, France. Laboratoire Jean Alexandre Dieudonné.** Visiting W. Fussner and delivering the talk “On concrete dual adjunctions”. 3 days.
- 2019 **Czech Academy of Sciences, Prague, Czech Republic. Department of Computer Science.**  
Visiting L. Reggio and delivering the talk “The dual of compact ordered spaces is a variety”. 4 days.
- 2018 **University of Salerno, Italy. Department of Mathematics.** Visiting L. Spada and delivering the talk “Archimedean Cauchy-complete MV-algebras form a variety”. 6 days.

VISITS HOSTED

- 2025 **R. N. Almeida.** At University of Birmingham, UK. School of Computer Science. 2 weeks.
- 2024 **S. van Gool.** At University of Birmingham, UK. School of Computer Science. 5 days.
- 2023 **A. Přenosil.** At University of Salerno, Italy. Department of Mathematics. 5 days.
- 2023 **F. Guffanti.** At University of Salerno, Italy. Departmente of Mathematics. 2 days

## Schools and courses

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- Upcoming:  
Sept. 2024 **“Proof and Computation” autumn school 2021** Fischbachau, Germany.
- June 2024 **Topology, Algebra and Categories in Logic 2024 Summer School.** Barcelona, Spain.
- April 2023 **Midlands Graduate School 2024.** Leicester, UK.
- Spring term  
2023/24 **Course “Advanced Functional Programming” (with Agda).** University of Birmingham, UK.
- Fall term  
2023/24 **Course “Functional Programming” (with Haskell).** University of Birmingham, UK.
- Fall term  
2023/24 **Course “An introduction to the theory of profinite groups”.** University of Salerno, Italy.
- June 2022 **Topology, Algebra and Categories in Logic 2022 Summer School.** Praia de Mira, Portugal.
- June 2019 **Topology, Algebra and Categories in Logic 2019 Summer School.** Île de Porquerolles, France.

## Academic associations

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Member of the Italian Association for Logic and its Applications (AILA).

## Languages

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<b>Italian</b>	Mother tongue.
<b>English</b>	Fluent. (2017/02/18: TOEFL IBT 106/120.)
<b>Spanish</b>	Intermediate.
<b>German</b>	Basic. (2016/10/12: B2 certificate issued by University of Stuttgart, Germany.)
<b>French</b>	Basic.