

CURRICULUM VITAE

PERSONAL INFORMATION

Luca Spada

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Nationality Italian.

ACADEMIC CAREER

Positions

- May 2016 - Present **Associate Professor of Mathematical Logic** at the Department of Mathematics of the University of Salerno.
- March 2012 - April 2016 **Assistant Professor** at the Department of Mathematics of the University of Salerno.
- August 2013 - July 2015 **Marie Curie Fellow** at the ILLC of the University of Amsterdam.
- April 2009 - March 2012 **Post-Doc** at the Department of Mathematics of the University of Salerno.
- July 2008 - March 2009 **Post-Doc** at the Institut für Diskrete Mathematik und Geometrie of the Technische University of Vienna.
- December 2006 - December 2007 **Post-Doc** at the Department of Mathematics and Computer Science of the University of Salerno.

Studies

- 29th June 2007 **Ph.D.** in Mathematical Logic
Department: Dipartimento di Matematica, Università degli Studi of Siena.
Thesis: Fixed points in many-valued logic.
Supervisor: *prof. Franco Montagna.*
- 15th October 2004 **Master** in Mathematical Logic and Theoretical Computer Science
School: Graduate College S.ta Chiara, Siena
- 1st October 2002 **Degree in Mathematics**
Department: Dipartimento di Matematica, Università degli Studi of Siena.
Score: 110/110 *cum laudæ*
Thesis: Continuous extensions of Łukasiewicz Logic
Supervisor: *prof. Franco Montagna.*

Habilitations

- August 2018 Habilitation to **full professorship** (SC 01/A1: Mathematical Logic)

RESEARCH ACTIVITIES

Publications

Papers in refereed journals

- [1] L. Carai, S. Lapenta and —, Baker-Beynon duality beyond semisimplicity. Accepted on the *Journal of Algebra*. 2025. arXiv:2310.13427
- [2] M. Abbadini, —. The unification type of Łukasiewicz logic with a bounded number of variables. *Journal of Symbolic Logic* 2025 online first doi: 10.1017/jsl.2025.10149. arXiv:2504.19011
- [3] M. Abbadini, V. Marra and —. Stone-Gelfand duality for metrically complete lattice-ordered groups. *Advances in Mathematics* 461, 2025. arXiv:2210.15341
- [4] — and G. St. John. 2-Weil rigs. *Theory and Applications of Categories W. Lawvere Festschrift* 43(12):382-402, 2025.
- [5] S. Lapenta, G. Metere and —, Relative ideals in homological categories, with an application to MV-algebras. *Theory and Applications of Categories* 41(27), 2024, 878-893. arXiv:2208.12597.
- [6] M. Abbadini, —. Are locally finite MV algebras a variety? *Journal of Pure and Applied Algebra*. 266(4) 2022. doi: 10.1016/j.jpaa.2021.106858.
- [7] A. Di Nola, G. Lenzi, and —, Sheaf representations and locality of Riesz spaces with order unit. *Journal of Logic and Analysis* 13, 2021. doi: 10.4115/jla.2021.13.2
- [8] O. Caramello, V. Marra and —. General affine adjunctions, Nullstellensätze, and dualities. *Journal of Pure and Applied Algebra*, 225(1), 2021. doi: 10.1016/j.jpaa.2020.106470.
- [9] J. Gil-Férez, —, C. Tsinakis, H. Zhou. Join completions for Ordered Structures. 44 pages. *Annals for Pure and Applied Logic*, 171(10), 2020. doi:10.1016/j.apal.2020.102842.
- [10] N. Bezhanishvili, N. Galatos, —. Canonical formulas for k -potent commutative, integral, residuated lattices. *Algebra Universalis* 77(3), 2017. doi:10.1007/s00012-017-0430-7.
- [11] L. M. Cabrer and —. MV-algebras, infinite dimensional polyhedra, and natural dualities. *Archive for Mathematical Logic*. 56(1):21–42, 2017. doi:10.1007/s00153-016-0512-9
- [12] —. An expansion of Basic Logic with fixed points. Special issue of *Soft Computing* in memoriam Franco Montagna. 21:29–37, 2017. doi:10.1007/s00500-016-2344-2
- [13] V. Marra, —, Duality, projectivity, and unification in Łukasiewicz infinite-valued propositional logic. *Annals of Pure and Applied Logic* 164:192-210. 2013. doi:10.1016/j.apal.2012.10.001
- [14] V. Marra, —. The dual adjunction between MV-algebras and Tychonoff spaces, *Studia Logica* 100(1-2):253-278, 2012. Special issue in memoriam Leo Esakia (L. Beklemishev, G. Bezhanishvili, D. Mundici and Y. Venema Editors), 2012. doi:10.1007/s11225-012-9377-z
- [15] B. Gerla, C. Russo, —, Representation of perfect and local MV-algebras. *Mathematica Slovaca* 61(3):327–340, 2011. (arXiv:1002.0980v1). doi:10.2478/s12175-011-0015-4
- [16] E. Marchioni, —. Advances in the Theory of μ ŁII algebras, *Logic Journal of the IGPL*, 19(3):476-489, 2011. doi:10.1093/jigpal/jzp089

- [17] A. Di Nola, G. Lenzi, —, Representation of MV-algebras by regular ultrapowers of $[0,1]$. *Archive for Mathematical Logic*, **49**(4):491–500, 2010. doi:10.1007/s00153-010-0182-y
- [18] A. Di Nola, R. Grigolia, —. A discrete representation of free MV-algebras, *Mathematical Logic Quarterly*, **56**(3):279–288, 2009. doi:10.1002/malq.200910036
- [19] —. ŁII logic with fixed points, *Archive for Mathematical Logic*, **47**(7-8):741–763, 2008. doi:10.1007/s00153-008-0105-3
- [20] A. Di Nola, G. Georgescu, —. Forcing in Łukasiewicz predicate logic. *Studia Logica* **89**(1):111-145, 2008. doi:10.1007/s11225-008-9120-y
- [21] —. μ MV algebras: an approach to fixed points in Łukasiewicz logic. *Fuzzy Sets and Systems*, Special Issue: Mathematical and Logical foundations of Soft Computing. **159**:1260–1267, 2008. doi:10.1016/j.fss.2007.12.010
- [22] F. Montagna, —. Continuous approximations of product implication in MV-algebras with product, *Soft Computing*, **9**(3):149–154, Springer-Verlag, Berlino, 2005. doi:doi.org/10.1007/s00500-003-0338-3

Proceedings (with referee)

- [23] S. Lapenta, S. Napolitano, —. The Logic $FP(\mathbb{L}, \mathbb{L})$ and Two-Sorted Equational States. In Proceedings of the 13th International Symposium on Imprecise Probabilities: Theories and Applications – ISIPTA 2023. Proceedings of Machine Learning Research 215. 2023.
- [24] S. Lapenta, S. Napolitano, —. Ideals in the Two-Sorted Variety of Equational States In Fuzzy Logic and Technology, and Aggregation Operators – Lecture Notes in Computer Science 14069, 2023. doi:10.1007/978-3-031-39965-7_41
- [25] M. Abbadini, F. Di Stefano, —. Unification in Łukasiewicz logic with a finite number of variables. In M.-J. Lesot et al. (Eds.): *IPMU 2020, CCIS 1239*, pp. 622–633, 2020. doi:10.1007/978-3-030-50153-2_46.
- [26] —, Some consequences of compactness in Łukasiewicz logic. in C. Drossos, P. Peppas and C. Tsinakis Eds. *Proceeding of the VII Panhellenic Symposium*. 2009.
- [27] —. μ MV algebras : an approach to fixed points in Łukasiewicz logic, in *Proceeding of the Intl. Conference on The Logic of Soft Computing*, Malaga, 2006.
- [28] —, Continuous approximations of MV-algebras with product and product residuation: a category-theoretic equivalence, *Collegium Logicum*, **8**, Vienna, 2005.

Book chapters

- [29] V. Marra, F. Montagna, and —. Logiche Polivalenti. in H. Hosni, G. Lolli e C. Toffalori, *Le direzioni della ricerca logica in Italia*. Edizioni della Normale. 2015. ISBN 978-88-7642-570-7.
- [30] A. Di Nola, —. A short introduction to formal fuzzy logic via t-norms, in D’ambra, etc. Editori, *Modelli e Tecnologie dell’ informazione a Supporto delle Decisioni*, Franco Angeli Editore. 2008. ISBN 9788846483812.

Invited papers

- [31] —. Geometric dualities for Łukasiewicz logic. *Bollettino dell’UMI*, **VI**(9):749-763 2013.
- [32] —. Punti fissi nelle logiche a più valori, *Bollettino dell’UMI: La Matematica nella Società e nella Cultura*. Serie VIII, Vol. **X-A**:355–358, 2007.

Volumes (as editor)

- [33] Proceedings of Many-Valued Logic 2012. In honour of Antonio Di Nola's 65th birthday. **Mathematica Slovaca**, Volume 65, Issue 4. Edited by A. R. Ferraioli, B. Gerla, C. Russo and —. 2015
- [34] Selected papers of the 8th International Tbilisi Symposium on Logica, Language and Computation. **Lecture Notes in Computer Science** 6618, Edited by N. Bezhanishvili, S. Löbner, K. Shwabe and —. 2011.
- [35] Festschrift on the occasion of Franco Montagna's 60th birthday, **Annals of Pure and Applied Logic** Volume 161, Issue 2. Edited by T. Flaminio, N. Preining, L. Spada. 2009.

Preprints

- [36] M. Menni and —. Regular epimorphisms in the category of rational polyhedra. *In preparation*.
- [37] P. Jipsen, — and G. St. John. An algebraic study of integral rigs. *In preparation*.
- [38] L. Carai, S. Lapenta and —, The non-standard geometry of MV-algebras. *In preparation*.
- [39] M. Abbadini, V. Marra and —. An equational axiomatisation of metrically complete lattice-ordered groups. *In preparation*.
- [40] V. Marra and —. Two isomorphism criteria for directed colimits. <https://arxiv.org/abs/1312.0432>, 2013.

Conference invited talks

- April 2022 The unification type of Łukasiewicz logic with finitely many variables. **Order Algebras and Logic** Les Diableretes, Switzerland.
- November 2021 Some remarks about rigs. **Open House on Category Theory** Ciudad de México.
- June 2017 Geometric aspects of MV-algebras. **TACL: Topology, Algebra and Categories in Logic** (TACL). Prague, Czech Republic.
- December 2015 An extension of Basic Logic with fixed points, **Coherence and Truth**. *In memoriam Franco Montagna*. Certosa di Pontignano (Siena), Italia.
- July 2014 *Dualities*, invited tutorial at **The Latin American Symposium on Mathematical Logic**. Buenos Aires, Argentina.
- September 2012 The multifarious representations of MV-algebras, **LATD: Logic, Algebra, and Truth Degrees**. Kanazawa, Japan.

Workshop invited talks

- March 2020 *Are locally finite MV-algebras a variety?* **Shanks Workshop on Ordered Algebras and Logic**. Vanderbilt University (Nashville, US).
- September 2018 *Kakutani duality, for groups*. **Duality in Algebra and Logic**. Chapman University, Orange, CA, USA.
- July 2018 *Denominator preserving maps*. Topological Methods in Logic (**ToLo VI**). Tbilisi, Georgia.
- November 2016 *A categorical duality for residuated lattices*. **Soft Computing Days**. Beijing, China.
- June 2016 *A duality for lattices with residuated operations*. Topological Methods in Logic (**ToLo**) V. Tbilisi, Georgia.
- May 2015 *A duality for the whole variety of MV-algebras via Ind- and Pro-completions*. **ALCOP** 2014. University of Delft, The Netherlands.
- December 2014 *A (nother) duality for the whole variety of MV-algebras*. **BEYOND** 2014. University of Florence, Italy.

- December 2014 *A general framework for dualities*. Workshop on dualities and Markov processes. [McGill University](#) Bellairs Research Institute, Barbados.
- September 2011 *Dualities for MV-algebras, "Ordered groups and lattices in algebraic logic"*. [Tbilisi, Georgia](#). Conference of the series *Studia Logica* in memoriam Leo Esakia.
- October 2010 *Unification for Abelian l-groups* Lattice-Ordered Groups and MV-Algebras: Interaction and Impact on Algebras of Logic. [Academy of Sciences, Buenos Aires](#), Argentina
- August 2010 *Projectivity and unification in many valued logic*, Workshop at [CSL: Computer Science in Logic](#) 2010. Brno, Repubblica Ceca.
- June 2010 *The prime spectrum of MV-algebras*, Topological methods in Logic ([ToLo](#)). Tbilisi, Georgia.

Invited Seminars

- September 2021 *Some remarks about rigs*. [Nonclassical Logic Webinar](#). Online.
- May 2020 *Are locally finite MV-algebras a variety?*. [Algebra | Coalgebra seminar](#), ILLC, University of Amsterdam.
- April 2018 *An overview of MV-algebras*. [Melbourne University](#), Australia.
- March 2018 *General affine adjunctions, Nullstellensätze, and dualities*. [Latrobe University](#) (Melbourne), Australia.
- February 2018 *Canonical formulas for k-potent commutative, integral, residuated lattices..* [Latrobe University](#) (Melbourne), Australia.
- November 2014 *A general framework for dualities*. Mathematical Institute. [Oxford University](#), UK.
- May 2014 *General affine adjunctions, Nullstellensätze, and dualities*. Applied Logic Seminars. [Delft University of Technology](#), The Netherlands.
- March 2014 *Axiomatisations for all varieties of n-potent residuated lattices*. Prague seminar on substructural logics Prague, Czech Republic.
- October 2013 *General affine adjunctions, Nullstellensätze, and dualities*, Colloquium on Mathematical Logic. [ILLC](#), Amsterdam, The Netherlands.
- May 2010 *Rappresentazioni di MV-algebre per fasci: una road map*, Dipartimento di Informatica e Comunicazione, [Università di Milano](#), Italy.
- May 2010 *Unification and projective algebras in Łukasiewicz Logic*, Dipartimento di Scienze dell'Informazione, [University of Milano](#), Italy.
- February 2010 *A discrete representation of free MV-algebras*, Dipartimento di Matematica, [University of Genova](#), Italy.
- December 2008 *Forcing in many-valued logic*, [Czech Academy of Sciences](#). Prague, Czech Republic.
- October 2008 *The geometry of MVⁿ-algebras*, Dipartimento di Scienze dell'Informazione, [University of Milano](#), Italy.
- September 2008 *Free MV algebras as direct limit*, Mathematical Institute, [Slovak Academy of Sciences. Bratislava](#), Slovakia.
- June 2008 *Fixed points in computer science: a many-valued perspective*, [Tbilisi State University](#). Tbilisi, Georgia.
- May 2008 *Fixed points in many-valued logic*, Institute of Mathematics "Simion Stoilow" [Accademia delle Scienze Rumena](#). Bucarest, Romania.
- November 2006 *Fixed points in fuzzy logics*, Dipartimento di Matematica ed Informatica. [University of Salerno](#). Italy.
- September 2005 *T-normes comme fondement de la logique floue*, Institut Camille Jordan. [Université Claude Bernard Lyon 1](#). France.

Talks at Conferences

- July 2025 **LATD** Logic Algebra and Truth Degrees.
Talk: Relative ideals, homological categories and non-classical logics
- June 2025 **ToLo Workshop**. Tbilisi, Georgia.
Talk: Some observations on the category of polyhedra
- September 2024 **XXVIII Incontro di Logica AILA** Udine, Italy.
Talk: Weil 2-rigs.
- September 2023 **EUSFLAT** (Conference of the European Society for Fuzzy Logic and Technology), Palma, Spain.
Talk: Ideals in the Two-Sorted Variety of Equational States
- July 2023 **ISIPTA** (International Symposium on Imprecise Probability: Theories and Applications), Oviedo, Spain.
Talk: The logic $FP(\mathbb{L}, \mathbb{L})$ and two-sorted equational states.
- June 2022 **TACL X** (Topology, Algebra, and Categories in Logic), Coimbra, Portugal.
Talk: The coordinatization of the spectra of ℓ -groups
- September 2019 **TbiLLC 2019** (Tbilisi Symposium on Logic, Language and Computation). Batumi, Georgia. 16–20 September 2019.
Talk: An algebraic study of Łukasiewicz logic with hedges.
- June 2019 **TACL IX** (Topology, Algebra, and Categories in Logic). Nice, France 17–21 June 2019.
Talk: Norm complete Abelian l-groups: topological duality.
- September 2017 **XXVI Incontro AILA**. Padova, Italy, 25-28 September 2017.
Talk: Denominator respecting maps.
- August 2017 **Logic Colloquium 2017**. Stockholm, Sweden, 14-20 August 2017.
Talk: Łukasiewicz logic, with coefficients.
- September 2015 **XX Congress of the Italian Mathematicians**. Siena, Italy.
Talk: The Nullstellensatz for varieties, and topological dualities.
- February 2014 **Shanks Workshop on Ordered Algebras and Logic**, Nashville, US.
Canonical Formulas and Residuated Lattices.
- December 2013 **International Workshop on Algebraic Logic in Computer Science (a satellite workshop of LPAR)**, Stellenbosch, South Africa.
Talk: An Isomorphism Criterion for Colimits of Sequences of Finitely Presented Objects
- August 2013 **TACL VI** (Topology, Algebra, and Categories in Logic), Nashville, US.
A general framework for geometric dualities for varieties of algebras.
- September 2011 **XIX Congresso dell'Unione Matematica Italiana**, Bologna, Italy.
Talk: Dualità geometriche per la logica di Łukasiewicz, (selected as **featured presentation**)
- July 2011 **TACL V** (Topology, Algebra, and Categories in Logic), Marseille, France
Talk: The unification type of Łukasiewicz logic is nullary, (selected as **featured presentation**)
- May 2010 **ManyVal10**: Beyond algebraic semantics: bridging intended and formal interpretations of many-valued logics, Varese, Italy
Talk: Omitting type theorems for Łukasiewicz Logic
- November 2009 **International workshop on Probability, Uncertainty and Rationality**, Siena, Italy.
Talk: A uniform version of Di Nola Theorem.
- September 2009 **TbiLLC**: 8th International Tbilisi Symposium on Language, Logic and Computation, Tbilisi, Georgia.

- July 2009 Talk: Advances in the theory of fixed points in many-valued logics.
7th Panhellenic Logic Symposium 2009, Patras. Greece.
- July 2009 Talk: Some consequences of compactness in Łukasiewicz Predicate Logic.
TACL IV (Topology, Algebra, and Categories in Logic), Amsterdam, The Netherlands.
- September 2007 Talk: Small advances in the algebraic proof theory of substructural logics.
XVIII Congresso dell'Unione Matematica Italiana, Bari, Italy.
- August 2007 Talk: Costruzioni universali nella varietà μLI .
TA(N)CL III (Algebraic and Topological Methods for non-Classical Logics), Oxford, UK.
- June 2007 Talk: Free constructions of μLI algebras.
3^d MATHLOGAPS Workshop, Assois, France
- September 2006 Talk: Finite and Infinite Forcing in Łukasiewicz Logic.
The Logic of Soft Computing V, Malaga, Spain
- August 2006 Talk: μMV algebras: an approach to fixed points in Łukasiewicz Logic
2^d MATHLOGAPS Workshop, Leeds, UK.
- August 2005 Talk: Algebra and Fuzzy Logic.
TA(N)CL II Algebraic and Topological Methods for non-Classical Logics, Barcelona, Spain
- August 2003 Talk: LI logic and fixed points.
8th Kurt Gödel Colloquium, Vienna, Austria.
- Invited poster session: LI algebras and quasi-fields

FUNDINGS

Selected Funded Projects

- December 2023 - December 2025 **PRIN PNRR 2022**: (Progetto di Ricerca di Interesse Nazionale): *Quantum Models for Logic, Computation and Natural Processes (Qm4Np)*. Coordinator: prof. Giuseppe Sergioli.
- Total co-funding: **269,900** euros.
 - Position in the project: **Coordinator of the unit**.
- September 2021 - August 2024 **RISE (Horizon 2020)**: Marie Skłodowska-Curie Research and Innovation Staff Exchange - *Modalities in Substructural Logics: Theory, Methods and Applications*. Coordinator: prof. Tommaso Flaminio.
- Total co-funding: **1,016,600** euros.
 - Position in the project: **Coordinator of the unit**.
- June 2019 - May 2022 **PRIN 2017**: (Progetto di Ricerca di Interesse Nazionale): *Theory and applications of resource sensitive logics*. Coordinator: prof. Francesco Paoli.
- Total co-funding: **264,800** euros.
 - Position in the project: **Coordinator of the unit**.
- March 2016 - March 2019 **RISE (Horizon 2020)**: Marie Skłodowska-Curie Research and Innovation Staff Exchange - *Syntax meet Semantics: Methods, Interactions, and Connections in Substructural logics*. The project involves 25 Universities in Argentina, Australia, Austria, Brazil, Czech Republic, Italy, Japan, Singapore, Spain, Slovakia, South Africa, the Netherlands, and United States. Please visit <http://logica.dipmat.unisa.it/sysmics/> for more information.
- Total co-funding: **500,000** euros.
 - Position in the project: **Coordinator of the project**.
- August 2013 - July 2015 **Marie Curie (FP7)** scholarship awarded by UE for the individual project ADAMS (A Dual Approach to Many-valued Semantics).
- Total fundings: **183,000** euros.
 - Position in the project: **Principal investigator**.
- March 2011 - March 2015 **IRSES (FP7)**: Marie Curie International Research Staff Exchange Scheme - *Mathematical Tools for the Management of Uncertain and Vague Information*. The project involves 13 Universities in Argentina, Brazil, Czech Republic, Italy and Spain. Please visit <http://logica.dipmat.unisa.it/matomuvi/> for more information.
- Total fundings: **174,600** euros.
 - Position in the project: **Coordinator of the project**.
- January 2012 - January 2015 **PRIN 2010-11** (Progetto di Ricerca di Interesse Nazionale): *Logical tools for the management of Information*. Coordinator: prof. Antonio Di Nola.
- Total co-funding: **550,000** euros.
 - Position in the project: **Researcher (member of the leading unit)**.
- March 2010 - January 2012 **PRIN 2008** (Progetto di Ricerca di Interesse Nazionale): *Algebraic semantics for the uncertainty*. Coordinator: prof. Antonio Di Nola.
- Total co-funding: **45,000** euros.
 - Position in the project: **Researcher (member of the leading unit)**.

TEACHING AND MENTORING
ACTIVITIES

Tutoring Post Doc

- August 2025 - 2026 Supervisor of the Post Doc research **Dr. Sebastian Melzer**.
- April 2024 - 2026 Supervisor of the Post Doc research **Dr. Andrea Cappelletti**.
- April 2023 - 2024 Supervisor of the Post Doc research **Dr. Gavin St. John**.
- December 2020 - 2023 Supervisor of the Post Doc research of **Dr. Marco Abbadini**.
- September 2021 - 2022 Supervisor of the Post Doc research of **Dr. Luca Carai**.
- August 2016 - 2019 Supervisor of the Post Doc research of **Dr. Serafina Lapenta**.

Tutoring PhD

- November 2025 - 2028 Supervisor of the PhD candidate **Dr. Mattia Malanga**.
- November 2023 - 2026 Supervisor of the PhD candidate **Dr. Matteo De Bernardinis**.
- November 2023 - 2026 co-Supervisor of the PhD candidate **Dr. Sebastiano Napolitano**.

B.Sc. and M.Sc.

Supervisor of numerous B.Sc. and M.Sc. theses.

Invited and international courses

- September 2017 **Algebraic Logic**, invited course (12 hours) at the AILA Summer School of Logic. Gargnano, Italy.
- September 2014 **Lecturer** for the course *Many Valued Logics* (6 CFU) for the M.Sc. in Logic. ILLC, University of Amsterdam, The Netherlands.
- February 2014 **Lecturer** for the project *Duality Theory* (6 CFU) for the M.Sc. in Logic. ILLC, University of Amsterdam, The Netherlands.
- October 2013 **co-Lecturer** for the course *Capita Selecta in Modal Logic* (6 CFU) for the M.Sc. in Logic. ILLC, University of Amsterdam, The Netherlands.
- August 2012 **Lukasiewicz logic and MV-algebras**, invited course at the summer school PMUV. Campinas (SP), Brazil.
- August 2012 **Some fundamental results in many-valued logic**, invited course at Izmir Winter School in Non-Classical Logic and its Applications. Izmir, Turkey.
- September 2009 **Introduction to fuzzy sets and fuzzy logic**, invited course at the summer school REASON PARK (REASONing under PARTial Knowledge). Foligno, Italy.
- September 2009 **An introduction to many-valued logic and its algebraic semantics** invited course at the Tbilisi Summer School in Logic. Tbilisi, Georgia.

PhD courses

- Academic years 22/23 and 23/24 Lecturer for the course **Lattice ordered groups and polyhedral geometry** for the Ph.D. in Mathematics. University of Salerno.
- Academic years 16/17, 17/18, 20/21, 21/22 Lecturer for the course **Category Theory** for the Ph.D. in Mathematics and Physics. University of Salerno.
- Academic years 18/19 Lecturer for the course **Topos Theory** for the Ph.D. in Mathematics and Physics. University of Salerno.

University courses

- Academic years 21/22, 22/23, 23/24, 24/25, 25/26 Lecturer for the course **Universal Algebra and Category Theory** (6 CFU) for the M.Sc. in Mathematics, University of Salerno.

Webpage of the course:	Public link
Average number of students:	5
Topics:	Subalgebras, Homomorphisms and Congruences. Lattice Theory. (Sub-)direct products, limits and inverse limits. Equational Classes. Categories, functors and natural transformations. Adjoint functors and equivalences. Limits and co-limits. Yoneda embedding, basic topos theory.
Academic years 20/21, 21/22, 22/23, 23/24, 24/25, 25/26	Lecturer for the course Foundations of Mathematics (6 CFU) for the B.Sc. in Mathematics, University of Salerno.
Webpage of the course:	Public link
Average number of students:	20
Topics:	The axiomatic method. Consistency, completeness, categoricity and independence. Hilbert's Program. A short overview of Gödel's incompleteness theorems. The theory ZF: the axiom of choice, ordinals and cardinals, Goodstein theorem, the constructible universe, independence theorems.
Academic years 17/18, 18/19, 19/20, 20/21, 21/22, 22/23, 23/24, 24/25, 25/26	Lecturer for the course Mathematical Logic (7 CFU) for the B.Sc. in Mathematics, University of Salerno.
Webpage of the course:	Public link
Average number of students:	100
Topics:	Propositional logic: natural deduction, completeness and compactness theorems with applications. Boolean algebras: Lindembaum-Tarski algebras, Stone's representation theorem, algebraic completeness. First order logic: completeness, ultra products, compactness, definability, Lowenheim-Skolem theorems.
Academic years 15/16, 16/17, 17/18, 18/19,	Lecturer for the course Calculus I (9 CFU) for the B.Sc. in Mechanical Engineering, for the B.Sc. in Environmental Science and for the B.Sc. in Economy and Management, University of Salerno.
Webpage of the course:	Public link
Average number of students:	150
Topics:	Sequences and numerical series. Real functions with one variable: continuity, derivatives and integrals.
Academic years 11/12	Lecturer of the course Computability Theory I (6 CFU) for the M.Sc. in Mathematics, University of Salerno.
Average number of students:	20
Topics:	Introduction and basic definitions. The four pillars of recursion theory. m-reducibility. Rice's Theorem and the Arithmetical Hierarchy. Post's Problem. Algorithmic randomness
Academic years 11/12	Lecturer for the Logic part of the course (MAT/02, 3 CFU) Discrete Mathematics and Mathematical Logic for the B.Sc. in Computer Science. University of Salerno.
Average number of students:	200
Topics:	Propositional logic, truth tables, normal forms, resolution.
Academic years 11/12	Lecturer for the course Mathematical Logic II (MAT/01, 6 CFU) for the M.Sc. in Computer Science. University of Salerno.
Average number of students:	10
Topics:	
Academic years 09/10, 10/11	Adjunct Professor for the course Logic (MAT/01, 6 CFU) for the M.Sc. in Cognitive Psychology at Seconda University of Napoli, Italy.
Average number of students:	50
Topics:	Propositional logic. Modal logic: syntax and Kripke semantics.

Math education and outreaching activities	
June 2019 - October 2019	Lecturer for the course <i>Numeracy</i> within Progetto Alphasente: potenziamento delle competenze di base nei bienni della scuola secondaria superiore. University of Salerno.
March 2019 - April 2019	co-Lecturer for the course <i>Laboratorio di Matematica</i> within Progetto Lauree Scientifiche, University of Salerno, Liceo Geonino and Liceo La Mura.
January 2017 - March 2017	co-Lecturer for the course <i>Laboratorio di Matematica</i> within Progetto Lauree Scientifiche, University of Salerno and Liceo Alfano I.
January 2012 - April 2013	Lecturer for the course <i>Laboratorio di Matematica</i> within Progetto Lauree Scientifiche, University of Salerno and Liceo Alfano I.
March 2012	External Teacher as expert in Logic for the national project P.O.N. F.S.E. 2012 at the istituto Magistrale Galizia. Nocera Inf. (SA)
April 2009 - June 2009	External Professor as expert in Logic for the national project P.O.N. F.S.E. 2008 at the istituto Magistrale Galizia. Nocera Inf. (SA) Title of the project: Il giardino di Archimede: fantasia e logica nella matematica
April 2008 - June 2008	External Professor as expert in Logic for the national project P.O.N. F.S.E. 2008 at the istituto Magistrale Galizia. Nocera Inf. (SA) Title of the project: Alice allo specchio: le meraviglie della matematica
January 2008 - September 2008	Adjunct Professor for the course <i>Logica</i> for the school S.I.C.S.I. (Scuola Interuniversitaria Campana di Specializzazione all’Insegnamento) of University of Salerno.

ACADEMIC SERVICE

Editorial boards

- April 2021 - March 2023 **Associate Editor** of *Proyecciones*.
- January 2014 - February 2024 **Associate Editor** of *Soft Computing*.
- January 2012 - January 2014 **Managing Editor** of *Soft Computing*.
- November 2013 Guest editor of *Mathematica Slovaca*. Special issue for the 65th birthday of prof. Antonio Di Nola.
- November 2009 Guest editor for the series **Lectures Notes in Computer Science**. Special issue containing selected works presented at the 8th International Tbilisi Symposium on Language, Logic and Computation.
- September 2008 Guest editor for **Annals of Pure and Applied Logic**. Special issue dedicated to prof. Franco Montagna's 60th birthday

Conference committees

- February 2024 **co-Chair** of the Scientific Committee of the conference **TACL** 2024, Barcelona, Spain.
- October 2022 **co-Chair** of the Scientific Committee of the conference **LATD** 2023, Tbilisi Georgia.
- December 2022 Member of the Scientific Committee of PSSL 108 and the satellite workshop on "Logic & Algebra", Palermo, Italy.
- September 2022 Member of the Scientific Committee of the conference **TbiLLC** Tbilisi, Georgia.
- April 2022 **co-Chair** of the Scientific Committee of the conference **Incontro AILA**, Caserta, Italy.
- April 2022 Member of the Scientific Committee of the conference **LATD+MOSAIC** 2022, Paestum, Italy
- April 2022 Member of the Organising Committee of the conference **LATD+MOSAIC** 2022, Paestum, Italy
- December 2018 Member of the Scientific Committee of the conference **Syntax meets Semantics 2019**, Amsterdam, the Netherlands.
- September 2018 Member of the Scientific Committee of the Second **SYMICS school**, Les Diablerets, Switzerland.
- September 2018 **Chair** of the Organising Committee of the conference **Geometry and non classical logic** (dedicated to the 70th birthday of Antonio Di Nola), Salerno, Italy.
- April 2017 Member of the Scientific Committee of the conference **TbiLLC** Tbilisi, Georgia.
- September 2016 **Chair** of the Scientific Committee of the conference **Syntax meets Semantics 2016**, Barcellona, Spain.
- September 2015 **co-Chair** of the Scientific Committee of the conference **TbiLLC** Tbilisi, Georgia.
- July 2015 **Chair** of the Organising Committee of the conference **TACL** (Topology, Algebra, and Categories in Logic) Ischia, Italy.
- June 2013 Member of the Organising Committee of the conference **Model Theory** Ravello, Italy.
- April 2013 **Co-organiser** of the workshop "Many valued logics" at the 3^d International Conference on Universal Logic, Rio de Janeiro, Brazil.
- September 2013 Member of the Scientific Committee of the conference **TbiLLC** (Tenth International Tbilisi Symposium on Language, Logic and Computation), Georgia.
- August 2012 Member of the Scientific Committee of the conference **PMUV** (Philosophy and Mathematics of Uncertainty and Vagueness), Campinas, Brazil.
- July 2012 Member of the Programme Committee of **ManyVal12**, celebrating Antonio Di Nola's 65th birthday, Salerno, Italy.

- September 2011 **Co-Chair** of the Scientific Committee for the conference **TbiLLC**: Tbilisi Symposium Series on Language, Logic and Computation, a series organised by the ILLC of the University of Amsterdam. Tbilisi
- May 2011 Member of the organising committee of the international conference **Algebraic Semantics for Uncertainty and Vagueness**, Salerno, Italy.
- November 2010 Member of the organising committee of the conference **Logica, linguaggio e didattica della matematica**, Salerno, Italy.
- September 2008 Member of the organising committee of the international conference **Logic, Algebra and Truth Degrees**, Siena.
- June 2007 Member of the organising committee of the international conference **CIE07 (Computability in Europe)**, Siena.

Positions in academic committees and associations

- September 2021 - Present **Head** of the Laboratory for Automated Reasoning.
- September 2022 - Present **Member** of the Scientific Committee of the Italian Summer School in logic
- September 2017 - 2023 **Secretary** of the Italian Association for Logic and its Applications (AILA).
- September 2017 - 2020 **Treasurer** of the Italian Association for Logic and its Applications (AILA).
- September 2019 - Present Member of the **PhD Council** of the Department of Mathematics, University of Salerno
- September 2020 - Present Member of the **Executive board** of the Department of Mathematics, University of Salerno
- September 2020 - Present Member of the **Departmental Board** for the quality of research of the Department of Mathematics, University of Salerno
- September 2020 - Present Member of the **Programme Board** of both the B.Sc. and M.Sc. in Mathematics, University of Salerno
- September 2020 - Present Member of the **Monitoring Board** of both the B.Sc. and M.Sc. in Mathematics, University of Salerno
- September 2020 - Present Member of the Department website team, University of Salerno

Selection committees

- February 2018 - Present Member of selection committees for PostDoc positions in Algebra and Logic
- February 2018 Member of the committee for the renewal of a RTD-A position in Mathematics Education at the University of Salerno.
- February 2017 Member of the selection committee for a RTD-A position in Logic at the University of Padova.

Academic associations

- January 2021 - Present Member of the European Mathematical Society **EMS**.
- January 2018 - Present Member of the Italian Mathematical Society **UMI**.
- September 2007 - Present Member of the Italian Association for Logic and its Applications (**AILA**).
- September 2007 - Present Member of Research group GNSAGA of the Italian Institute for Higher Mathematics.
- September 2008 - Present Member of the international research group **Computability in Europe**.
- January 2019 - December 2022 Member of the American Mathematical Society **AMS**.
- September 2007 - September 2020 Member of the EUSFLAT research working group **MathFuzzLog**.

Referee activities

Referee for numerous mathematical journals such as: Journal of London Mathematical Society, Transaction of AMS, Revista Matemática Iberoamericana, Journal of the Australian Mathematical Society, Houston Journal of Mathematics, Annals of Pure and Applied Logic, Journal of Symbolic Logic, Journal of Pure and Applied Algebra, Archives for Mathematical logic, Algebra Universalis, Order, Studia Logica, Mathematical Logic Quarterly, Fuzzy sets and Systems, etc.

Referee for numerous research projects at Italian universities.

Referee for various PhD theses in logic.

Reviewer for MathSciNet and Zentralblatt.

Referee for the **Czeck Research and Development Agency**, **MIUR** (Italian Ministry of Research and Education), **ANVUR** (Italian Agency for Research Evaluation), **INDAM** (Italian Institute for High Mathematics) and **Slovak Research and Development Agency**.

FOREIGN LANGUAGES

Mother tongue Italian

Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	B2	B2	B2	B2	B1
Spanish	B2	B2	B1	B1	A2
Portuguese	B2	B2	A2	A2	A1
Dutch	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user

[Common European Framework of Reference for Languages](https://european-framework-of-reference-for-languages.eu)