



Ugo Dal Lago, PhD **Curriculum Vitae**

Dati Personali

Data di Nascita : 26 Febbraio 1977.

Comune di Nascita : Schio (VI).

Nazionalità : Italiana.

Posizione Lavorativa Attuale : Professore Ordinario, Dipartimento di Informatica — Scienza e Ingegneria,
Università di Bologna.

Email : ugo.dallago@unibo.it

Rapporti di Lavoro

Contratti di Lunga Durata

Da 11/2019 *Università di Bologna*. Professore Ordinario.

11/2015–10/2019 *Università di Bologna*. Professore Associato.

10/2006–10/2015 *Università di Bologna*. Ricercatore (conferma in ruolo ottenuta il 16 Ottobre 2009).

01/2007–12/2007: *Université Denis Diderot, Paris, France*. Marie Curie Fellow. Tematica: Strutture Semantiche Unificanti per la Complessità Computazionale Implicita. Finanziato da: Comunità Europea.

09/2001–07/2002: *ITC-IRST, Trento*. Ricercatore a contratto.

Contratti di Breve Durata

06/2016: *Université Denis Diderot, Paris, France*. Professore Invitato. Tematica: Programmazione Probabilistica e Semantica Denotazionale.

03/2011: *Université Denis Diderot, Paris, France*. Professore Invitato. Tematica: Computazione Quantistica.

07/2010: *ENS Lyon, France*. Professore Invitato. Tematica: Complessità Computazionale Implicita.

05/2006–10/2006: *Université de Paris-Nord, France*. Borsa Postdoc. Tematica: Complessità Computazionale Implicita. Finanziato da: Université Paris-Nord.

01/2006–04/2006: *Università di Verona*. Borsa Postdoc. Tematica: Complessità Computazionale Implicita. Finanziato da: MIUR (Ministero dell'Istruzione, della Ricerca e dell'Università).

Studi

01/2003–12/2005: *Università di Bologna*. Dottorato in Informatica (XVIII ciclo). Supervisore: Professor Simone Martini. Tema di Ricerca: Logica Lineare e Complessità Computazionale Implicita. Finanziato da: MIUR (Ministero dell'Istruzione, dell'Università e della Ricerca). Data della discussione: 26 Aprile 2006.

10/1996–07/2001: *Università di Udine*. Laurea in Informatica con pieni voti (110/110 e lode).

Premi

05/2015: *Best Italian Young Researcher in Theoretical Computer Science*. Rilasciato dal Capitolo Italiano di EATCS

09/2006: *Best Italian PhD Thesis on Theoretical Computer Science*. Rilasciato dal Capitolo Italiano di EATCS.

07/2006: *Kleene Award for Best LICS Student Paper*. Rilasciato da IEEE.

Borse

05/2006: *Borsa di Ricerca “Marie Curie”*. Finanziata da: Unione Europea

02/2006: *Borsa Postdoc*. Finanziata da: Université Paris Nord.

01/2006: *Assegno di Ricerca*. Finanziato da: MIUR

05/2004: *Borsa di Ricerca “Marco Polo”*. Finanziata da: Università di Bologna.

Attività di Ricerca

Interessi di Ricerca

- Semantica dei Linguaggi di Programmazione.
- Analisi di Complessità di Programmi.
- Calcolo Probabilistico e Crittografia.
- Teoria della Computazione Quantistica.
- Logica Lineare

Progetti di Ricerca

2022–2025 Progetto “ICSC National Research Centre for High Performance Computing, Big Data and Quantum Computing”. Finanziato dal PNRR.

2022–2025 Progetto CAFFEINE (“Compositional and Effectful Program Distances”). Finanziato da MUR (Ministero dell’Università e della Ricerca). **Responsabile Scientifico** del progetto.

2019–2023 Progetto PPS (“Probabilistic Programming Semantics”). Finanziato da ANR, Francia.

2019–2022 Progetto ASPRA (“Analizzare le Analisi di Programma”). Finanziato dal MUR (Ministero dell’Università e della Ricerca). Unità di Bologna

2019–2024 Progetto DIAPASoN (“Differential Program Semantics”). ERC Consolidator Grant. **Responsabile Scientifico** del progetto.

2015–2020 Progetto CRECOGI (“Concurrent, Resourceful and Effectful COmputation, by Geometry of Interaction”). Équipe Associée INRIA-JAPON. **Responsabile Scientifico** del progetto.

2016–2020 Progetto REPAS (“Reliable and Privacy-Aware Software systems”). Finanziato da ANR, Francia.

2014–2018 Progetto ELICA (“Expanding Logical Ideas in Complexity Analysis”). Finanziato da ANR, Francia.

- 2013–2016** Progetto PACE (“beyond plain Processes: Analysis techniques, Coinduction and Expressiveness”). Finanziato da ANR, Francia.
- 2011–2012** Progetto ETERNAL (“intEracTive rEsouRce AnaLysis”). Progetto di Ricerca Cooperativa finanziato da INRIA. **Responsabile Scientifico** del progetto, che coinvolgeva i gruppi INRIA-PARSIFAL (coordinatore: Dale Miller) e INRIA-PIR2 (coordinatore: Pierre-Louis Curien).
- 2009–2012** Progetto HATS (“Highly Adaptable and Trustworthy Software using formal methods”, Project no. FP7-231620). Finanziato dalla Comunità Europea tramite FP7.
- 2008–2010** Progetto CONCERTO (“CONTRol and CERTification of Resources Usage”). Parzialmente finanziato dal MIUR (Ministero dell’Istruzione, Università e Ricerca). Unità di Bologna.
- 2006** Progetto NOCOST (“Nouveaux Outils pour la COmplexité : Sémantique et Types”). Finanziato da ANR (Agence Nationale de la Recherche).
- 2005–2006** Progetto FOLLIA (“FONDazioni LOGiche di LInguaggi Astratti di programmazione”). Parzialmente finanziato dal MIUR (Ministero dell’Istruzione, Università e Ricerca). Unità di Bologna.
- 2003–2004** Progetto PROTOCOLLO (“From PROof TO COmputation through Linear LOGic”). Parzialmente finanziato dal MIUR (Ministero dell’Istruzione, Università e Ricerca). Unità di Bologna.
- 2001–2002** Progetto Europeo FORPICS. Unità di Trento.

Seminari ad Invito

- “On Higher-Order Cryptography”, *18th International Conference on Computability and Complexity in Analysis*, Luglio 2021.
- “On Differential Program Semantics”, *16th International Computer Science Symposium in Russia*, Luglio 2021.
- “On Differential Program Semantics”, *Online Worldwide Seminar on Logic and Semantics*, Giugno 2021.
- “Intersection Types and (Positive) Almost-Sure Termination”, *Mathematical Foundations Seminar, University of Bath*, Febbraio 2021.
- “On Higher-Order Cryptography”, *Research Seminar, Information Security Group, Royal Holloway University of London*, Febbraio 2021
- “On Higher-Order Cryptography”, *BUSec Security Seminar, Boston University*, Maggio 2020.
- “Differential Logical Relations” *Mathematical Foundations Seminar, University of Bath*, Luglio 2019.
- “Complexity Classes and Higher-Order Calculi — How Martin Contributed to Shaping ICC” *Martin Hofmann Memorial Meeting, LMU Munich*, Luglio 2019.
- “Differential Program Semantics” *Computer Science Workshop, University of Genova*, Giugno 2019.
- “Differential Program Semantics” *Colloquium, Università Roma Tre*, Gennaio 2019.
- “Context Equivalences and Metrics in Probabilistic Lambda-Calculi” *Logic and Semantics Seminar, University of Cambridge, UK*, Ottobre 2016
- “On Bisimulation Relations for Probabilistic Higher-order Functional Programs”. *Workshop on Semantics of proofs and programs, IHP, Paris*, Giugno 2014.
- “The Geometry of Synchronization”. *Workshop on Concurrency, Logic, and Types, Lyon*, February 2014.
- “The Geometry of Types”. *2nd International Workshop on Linearity, Tallinn*, 1 Aprile 2012.
- “Implicit Computational Complexity in a Concurrency Scenario”. *11th International Workshop on Logic and Computational Complexity (LCC), Edinburgh*, 10 Luglio 2010.
- Corso di Dottorato ad Invito “Implicit Computational Complexity”. European Summer School on Logic, Language and Information. Copenhagen, Agosto 2010.
- “On the Linear Approach to Implicit Computational Complexity: Semantics”. *LOGIC. Workshop in Honor of Jean-Yves Girard’s 60th Birthday*. 19 Maggio 2007.

- “Context Semantics and Implicit Computational Complexity”. *Séminaire Logique et Interaction, Institut de Mathématiques de Luminy*. 27 Marzo 2007.
- “The Geometry of Linear Higher-Order Recursion”. *CRISS workshop, Paris, France* 13 Giugno, 2005.

Partecipazione a Comitati Editoriali

da 1/2019: membro del comitato editoriale della rivista *Acta Informatica*.

da 12/2017: membro del comitato editoriale della rivista *Logical Methods in Computer Science*.

da 12/2017: membro del comitato editoriale della rivista *Mathematical Structures in Computer Science*.

Partecipazione a Gruppi di Lavoro e Comitati Reggenti

da 12/2018: membro dello SC di FoSSaCS (“Conference on Foundations of Software Science and Computational Structures”).

12/2014–12/2018: segretario del gruppo di lavoro IFIP WG 1.6, Term Rewriting.

07/2014–07/2016: membro dello SC di TLCA (“Conference on Typed Lambda Calculi and Applications”).

da 3/2012: membro dello SC di DICE (“Workshop on Developments in Implicit Complexity”).

da 7/2016: membro dello SC di LCC (“Workshop on Logic and Computational Complexity”).

Direzione di Comitati di Programma

- *Conferenze:* FOSSACS2018.
- *Workshop:* TLLA2020, GALOP2018, LCC2016, DCM2014, FOPARA2013, DICE2012.

Partecipazione a Comitati di Programma

- *Conferenze:* ICALP2021, FOSSACS2021, PPDP2020, POPL2020, LICS2020, FSCD2019, LICS2018, FSCD2017, CSL2017, FSCD2016, ICTCS2015, CSL2015, ICALP2015, FOSSACS2015, IFIP-TCS2014, RTATLCA2014, FSTTCS2013, CSL2013, FOSSACS2013, ICALP2012, TLCA2011, ICALP2010, LICS2008.
- *Workshops:* GALOP2009, LINEARITY2009, FOPARA2009, DICE2010, DICE2011, WST2012, GALOP2013, LOLA2014, DCM2015, FOPARA2015, CMCS2016, WST2016.

Partecipazione a Commissioni di Valutazione e Giurie

- Membro della Commissione di Valutazione per un posto di *Maitre de Conférences* presso l’Université Denis Diderot, Aprile 2018.
- Membro della Commissione di Valutazione per un posto di *Maitre de Conférences* presso l’ENS Lyon, Maggio 2009.
- Revisore e/o membro della Giuria di Tesi di:
 - Alejandro Aguirre, “Relational logics for higher-order effectful programs”, Universidad Politécnica de Madrid, 2021;
 - Federico Olimpieri, “Intersection types and resource calculi in the denotational semantics of λ -calculus”, Université Aix-Marseille, 2020;
 - Gianluca Curzi, “Non-Laziness in Implicit Computational Complexity and Probabilistic λ -calculus”, Università di Torino, 2020;
 - Niels Vorneveld, “Equality Between Programs with Effects”, University of Ljubljana”, 2020;

- Koko Muroya, “Hypernet Semantics of Programming Languages”, University of Birmingham”, 2019;
- Pierre Vial, “Non-Idempotent Typing Operators, Beyond the Lambda-Calculus”, Université Denis-Diderot, 2017.
- Simon Castellan, “Structures Concurrentes en Sémantique de Jeux”, ENS Lyon, 2017;
- Thomas Leventis, “Lambda-théories Probabilistes”, Université Aix-Marseille, 2016;
- Matteo Pascucci, “Modal Logics with Propositional Constants” Università di Verona, 2016;
- Erika de Benedetti, “Linear Logic, Type Assignment Systems and Implicit Computational Complexity” Università di Torino, 2015;
- Marc Bagnol, “On the Resolution Semiring” Université Aix-Marseille, 2014;
- Michele Alberti, “On Operational Properties of Quantitative Extensions of Lambda-Calculus” Université Aix-Marseille, 2014;
- Stephane Zimmermann, “Vers une Ludique Differentielle” Université Denis-Diderot, 2013;
- Clément Aubert, “Linear Logic and Sub-polynomial Classes of Complexity” Université Paris-Nord, 2013;
- Antoine Madet, “Implicit Complexity in Concurrent Lambda-Calculi”, Université Denis-Diderot, 2012.

Attività di Insegnamento

Corsi ad Invito

- *From Program Equivalences to Program Metrics*, Oregon Programming Language Summer School, 2021.
- *A Brief Introduction to Probabilistic and Quantum Programming*, Universidade do Minho, 2017.
- *Introduction to Probabilistic and Quantum Programming*, Bertinoro International Spring School, 2014.

Corsi

- *Languages and Algorithms in Artificial Intelligence*, Corso di Laurea Magistrale in Artificial Intelligence, *Università di Bologna*. Anni accademici da 2019/2020 a 2021/2022.
- *Algorithms and Data Structures in Biology*, Corso di Laurea Triennale in Genomics, *Università di Bologna*. Anni accademici da 2018/2019 a 2019/2020.
- *Fondamenti Logici dell’Informatica*, Corso di Laurea Magistrale in Informatica, *Università di Bologna*. Anni accademici da 2017/2018 a 2021/2022.
- *Crittografia*, Corso di Laurea Magistrale in Informatica, *Università di Bologna*. Anni accademici da 2014/2015 a 2021/2022.
- *Ottimizzazione*, Corso di Laurea Triennale in Informatica, *Università di Bologna*. Anni accademici da 2012/2013 a 2021/2022.
- *Programmazione Python*, Corso di Laurea Triennale in Matematica, *Università di Bologna*. Anni accademici da 2011/2012 a 2013/2014.
- *Sicurezza e Crittografia*, Corso di Laurea Magistrale in Informatica, *Università di Bologna*. Anni accademici da 2008/2009 a 2010/2011.
- *Introduction to Quantum Computing*, Dottorato di Ricerca in Informatica, *Università di Bologna*. Novembre 2010.
- *Implicit Computational Complexity*, European Summer School on Logic, Language and Information. Agosto 2010, Copenhagen, Danimarca.
- *Programmazione Java*, Corso di Laurea Triennale in Informatica, *Università di Bologna*. Anni accademici da 2008/2009 a 2010/2011.
- *Introduction to Computer Science Application*, International Bologna Master on Bioinformatics, *Università di Bologna*. Anni accademici 2008/2009 e 2009/2010.

- *Architettura degli Elaboratori*, Corso di Laurea Triennale in Informatica, *Università di Bologna*. Anni accademici 2006/2007 e 2007/2008.

Supervisione di Tesi di Dottorato

- Andrea Colledan. *Complexity Analysis in Quantum Programming Languages*. Dottorato in Informatica (XXXVII Ciclo), Università di Bologna. Supervisore.
- Melissa Antonelli. *Probabilistic Arithmetic and Almost-sure Termination*". Dottorato in Informatica (XXXV Ciclo), Università di Bologna. Supervisore.
- Gabriele Vanoni. *Optimal Reduction, Geometry of Interaction, and the Space-Time Tradeoff*. Dottorato in Informatica (XXXIV Ciclo), Università di Bologna. Supervisore.
- Francesco Gavazzo. *Coinductive Equivalences and Metrics for Higher-order Languages with Algebraic Effects*. Dottorato in Informatica (XXXI Ciclo), Università di Bologna. Supervisore.
- Alberto Cappai. *On Equivalences, Metrics, and Computational Indistinguishability*. Dottorato in Informatica (XXVIII Ciclo), Università di Bologna. Supervisore.
- Alessandro Rioli. *Coinductive Techniques on a Linear Quantum λ -Calculus*. Dottorato in Informatica (XXVII Ciclo), Università di Bologna. Supervisore.
- Sara Zuppiroli. *Probabilistic Recursion Theory and Implicit Computational Complexity*. Dottorato in Informatica (XXV Ciclo), Università di Bologna. Supervisore.
- Giulio Pellitta. *Extending Implicit Computational Complexity and Abstract Machines to Languages with Control*. Dottorato in Informatica (XXVI Ciclo), Università di Bologna. Co-Supervisore.
- Paolo Parisen Toldin. *Implicit Computational Complexity and Probabilistic Classes*. Dottorato in Informatica (XXV Ciclo), Università di Bologna. Co-Supervisore.

Attività Istituzionali

- *Membro della Giunta del Dipartimento di Informatica* dell'Università di Bologna, da Maggio 2012 a Maggio 2015.
- *Responsabile Erasmus* per i Corsi di Laurea Triennale e Magistrale in Informatica dell'Università di Bologna, a partire dall'Anno Accademico 2008/2009.
- *Membro unico della Commissione per i Controrelatori*, Corso di Laurea Magistrale, dell'Università di Bologna, a partire dall'Anno Accademico 2008/2009 e fino all'Anno Accademico 2018/2019.
- *Membro della Commissione di Ammissione* al Collegio Superiore dell'Università di Bologna per gli Anni Accademici 2013/2014, 2014/2015, 2015/2016, 2016/2017, 2017/2018.
- *Membro della Commissione Scambi con l'Estero* del Collegio Superiore dell'Università di Bologna, a partire da Settembre 2014 e fino a Settembre 2018.

Pubblicazioni — Selezione

Riviste

- [1] Ugo Dal Lago and Alexis Ghyselen. On model-checking higher-order effectful programs. *Proc. ACM Program. Lang.*, 8(POPL):2610–2638, 2024.
- [2] Melissa Antonelli, **Ugo Dal Lago**, and Paolo Pistone. On counting propositional logic and wagner's hierarchy. *Theor. Comput. Sci.*, 966-967:113928, 2023.
- [3] **Ugo Dal Lago**, Reinhard Kahle, and Isabel Oitavem. Implicit recursion-theoretic characterizations of counting classes. *Arch. Math. Log.*, 61(7-8):1129–1144, 2022.
- [4] **Ugo Dal Lago** and Francesco Gavazzo. A relational theory of effects and coeffects. *Proc. ACM Program. Lang.*, 6(POPL):1–28, 2022.

- [5] **Ugo Dal Lago** and Francesco Gavazzo. Effectful program distancing. *Proc. ACM Program. Lang.*, 6(POPL):1–30, 2022.
- [6] **Ugo Dal Lago**. Implicit computation complexity in higher-order programming languages: A survey in memory of martin hofmann. *Math. Struct. Comput. Sci.*, 32(6):760–776, 2022.
- [7] Gilles Barthe, Raphaëlle Crubillé, **Ugo Dal Lago**, and Francesco Gavazzo. On feller continuity and full abstraction. *Proc. ACM Program. Lang.*, 6(ICFP):826–854, 2022.
- [8] Beniamino Accattoli, **Ugo Dal Lago**, and Gabriele Vanoni. Multi types and reasonable space. *Proc. ACM Program. Lang.*, 6(ICFP):799–825, 2022.
- [9] **Ugo Dal Lago** and Naohiko Hoshino. The geometry of bayesian programming. *Math. Struct. Comput. Sci.*, 31(6):633–681, 2021.
- [10] **Ugo Dal Lago** and Francesco Gavazzo. Differential logical relations, part II: Increments and derivatives. *Theor. Comput. Sci.*, 895:34–47, 2021.
- [11] **Ugo Dal Lago**, Claudia Faggian, and Simona Ronchi Della Rocca. Intersection types and (positive) almost-sure termination. *Proc. ACM Program. Lang.*, 5(POPL):1–32, 2021.
- [12] Flavien Breuvert, **Ugo Dal Lago**, and Agathe Herrou. On higher-order probabilistic subrecursion. *Log. Methods Comput. Sci.*, 17(4), 2021.
- [13] Martin Avanzini, Gilles Barthe, and **Ugo Dal Lago**. On continuation-passing transformations and expected cost analysis. *Proc. ACM Program. Lang.*, 5(ICFP):1–30, 2021.
- [14] Beniamino Accattoli, **Ugo Dal Lago**, and Gabriele Vanoni. The (in)efficiency of interaction. *Proc. ACM Program. Lang.*, 5(POPL):1–33, 2021.
- [15] **Ugo Dal Lago** and Gabriele Vanoni. On randomised strategies in the λ -calculus. *Theor. Comput. Sci.*, 813:100–116, 2020.
- [16] **Ugo Dal Lago**, Francesco Gavazzo, and Ryo Tanaka. Effectful applicative similarity for call-by-name lambda calculi. *Theor. Comput. Sci.*, 813:234–247, 2020.
- [17] Naoki Kobayashi, **Ugo Dal Lago**, and Charles Grellois. On the termination problem for probabilistic higher-order recursive programs. *Log. Methods Comput. Sci.*, 16(4), 2020.
- [18] Martin Avanzini, **Ugo Dal Lago**, and Akihisa Yamada. On probabilistic term rewriting. *Sci. Comput. Program.*, 185, 2020.
- [19] **Ugo Dal Lago** and Charles Grellois. Probabilistic termination by monadic affine sized typing. *ACM Trans. Program. Lang. Syst.*, 41(2):10:1–10:65, 2019.
- [20] Patrick Baillot, Gilles Barthe, and **Ugo Dal Lago**. Implicit computational complexity of subrecursive definitions and applications to cryptographic proofs. *J. Autom. Reasoning*, 63(4):813–855, 2019.
- [21] Martin Avanzini and **Ugo Dal Lago**. On sharing, memoization, and polynomial time. *Inf. Comput.*, 261:3–22, 2018.
- [22] **Ugo Dal Lago** and Ulrich Schöpp. Computation by interaction for space-bounded functional programming. *Inf. Comput.*, 248:150–194, 2016.
- [23] **Ugo Dal Lago**, Simone Martini, and Davide Sangiorgi. Light logics and higher-order processes. *Mathematical Structures in Computer Science*, 26(6):969–992, 2016.
- [24] **Ugo Dal Lago** and Paolo Di Giamberardino. On session types and polynomial time. *Mathematical Structures in Computer Science*, 26(8):1433–1458, 2016.

- [25] Patrick Baillot and **Ugo Dal Lago**. Higher-order interpretations and program complexity. *Inf. Comput.*, 248:56–81, 2016.
- [26] Beniamino Accattoli and **Ugo Dal Lago**. (leftmost-outermost) beta reduction is invariant, indeed. *Logical Methods in Computer Science*, 12(1), 2016.
- [27] **Ugo Dal Lago** and Paolo Parisen Toldin. A higher-order characterization of probabilistic polynomial time. *Inf. Comput.*, 241:114–141, 2015.
- [28] **Ugo Dal Lago**, Sara Zuppiroli, and Maurizio Gabbrielli. Probabilistic recursion theory and implicit computational complexity. *Sci. Ann. Comp. Sci.*, 24(2):177–216, 2014.
- [29] **Ugo Dal Lago** and Barbara Petit. Linear dependent types in a call-by-value scenario. *Sci. Comput. Program.*, 84:77–100, 2014.
- [30] **Ugo Dal Lago** and Margherita Zorzi. Probabilistic operational semantics for the lambda calculus. *RAIRO - Theor. Inf. and Applic.*, 46(3):413–450, 2012.
- [31] **Ugo Dal Lago** and Simone Martini. On constructor rewrite systems and the lambda calculus. *Logical Methods in Computer Science*, 8(3), 2012.
- [32] **Ugo Dal Lago** and Marco Gaboardi. Linear dependent types and relative completeness. *Logical Methods in Computer Science*, 8(4), 2012.
- [33] Patrick Baillot, **Ugo Dal Lago**, and Jean-Yves Moyen. On quasi-interpretations, blind abstractions and implicit complexity. *Mathematical Structures in Computer Science*, 22(4):549–580, 2012.
- [34] **Ugo Dal Lago** and Martin Hofmann. Realizability models and implicit complexity. *Theor. Comput. Sci.*, 412(20):2029–2047, 2011.
- [35] Patrick Baillot, Paolo Coppola, and **Ugo Dal Lago**. Light logics and optimal reduction: Completeness and complexity. *Information and Computation*, 209(2):118–142, 2011.
- [36] **Ugo Dal Lago**, Andrea Masini, and Margherita Zorzi. Quantum implicit computational complexity. *Theoretical Computer Science*, 411(2):377–409, 2010.
- [37] **Ugo Dal Lago** and Martin Hofmann. A semantic proof of polytime soundness for light affine logic. *Theory of Computing Systems*, 46(4):673–689, 2010.
- [38] **Ugo Dal Lago** and Martin Hofmann. Bounded linear logic, revisited. *Logical Methods in Computer Science*, 6(4), 2010.
- [39] **Ugo Dal Lago**, Andrea Masini, and Margherita Zorzi. On a measurement-free quantum lambda calculus with classical control. *Mathematical Structures in Computer Science*, 19(2):297–335, 2009.
- [40] **Ugo Dal Lago**. The geometry of linear higher-order recursion. *ACM Transactions on Computational Logic*, 10(2), 2009.
- [41] **Ugo Dal Lago**. Context semantics, linear logic and computational complexity. *ACM Transactions on Computational Logic*, 10(4), 2009.
- [42] **Ugo Dal Lago** and Simone Martini. The weak lambda-calculus as a reasonable machine. *Theoretical Computer Science*, 398(1-3):32–50, 2008.
- [43] Paolo Coppola, **Ugo Dal Lago**, and Simonetta Ronchi Della Rocca. Light logics and the call-by-value lambda calculus. *Logical Methods in Computer Science*, 4(4), 2008.
- [44] **Ugo Dal Lago**, Angelo Montanari, and Gabriele Puppis. Compact and tractable automaton-based representations of time granularities. *Theoretical Computer Science*, 373(1-2):115–141, 2007.

- [45] **Ugo Dal Lago** and Patrick Baillot. Light affine logic, uniform encodings and polynomial time. *Mathematical Structures in Computer Science*, 16(4):713–733, 2006.
- [46] **Ugo Dal Lago** and Simone Martini. Phase semantics and decidability of elementary affine logic. *Theoretical Computer Science*, 318(3):409–433, 2004.

Atti di Congressi e Workshop con Revisore

- [1] Andrea Colledan and **Ugo Dal Lago**. Circuit width estimation via effect typing and linear dependency. In *Programming Languages and Systems - 33rd European Symposium on Programming, ESOP 2024*, volume 14577 of *Lecture Notes in Computer Science*, pages 3–30. Springer, 2024.
- [2] Patrick Baillot, **Ugo Dal Lago**, Cynthia Kop, and Deivid Vale. On basic feasible functionals and the interpretation method. In *Foundations of Software Science and Computation Structures - 27th International Conference, FoSSaCS 2024*, volume 14575 of *Lecture Notes in Computer Science*, pages 70–91. Springer, 2024.
- [3] Melissa Antonelli, **Ugo Dal Lago**, Davide Davoli, Isabel Oitavem, and Paolo Pistone. Enumerating error bounded polytime algorithms through arithmetical theories. In *32nd EACSL Annual Conference on Computer Science Logic, CSL 2024, February 19-23, 2024, Naples, Italy*, volume 288 of *LIPICs*, pages 10:1–10:19. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2024.
- [4] **Ugo Dal Lago** and Gabriele Vanoni. (not so) boring abstract machines. In *Proceedings of the 24th Italian Conference on Theoretical Computer Science, Palermo, Italy, September 13-15, 2023*, volume 3587 of *CEUR Workshop Proceedings*, pages 225–240. CEUR-WS.org, 2023.
- [5] **Ugo Dal Lago**, Naohiko Hoshino, and Paolo Pistone. On the lattice of program metrics. In *8th International Conference on Formal Structures for Computation and Deduction, FSCD 2023, July 3-6, 2023, Rome, Italy*, volume 260 of *LIPICs*, pages 20:1–20:19. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2023.
- [6] **Ugo Dal Lago**, Francesco Gavazzo, and Alexis Ghyselen. Open higher-order logic. In *31st EACSL Annual Conference on Computer Science Logic, CSL 2023, February 13-16, 2023, Warsaw, Poland*, volume 252 of *LIPICs*, pages 17:1–17:17. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2023.
- [7] **Ugo Dal Lago**, Furio Honsell, Marina Lenisa, and Paolo Pistone. On quantitative algebraic higher-order theories. In *7th International Conference on Formal Structures for Computation and Deduction, FSCD 2022, August 2-5, 2022, Haifa, Israel*, volume 228 of *LIPICs*, pages 4:1–4:18. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2022.
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