Giulio GUERRIERI – curriculum vitae

Date and place of birth: July 12, 1981; Rome (Italy) Nationality: Italian Sex: Male
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Research expertise and interests

My research lies at the intersection of logic, theoretical computer science, and mathematics, and deals with the modern proof theory as developed after the discovery of the Curry-Howard correspondence between proofs and programs. On the one hand, mathematical tools such as the ones used in denotational semantics, rewriting theory, or type theory allow us to study the proprieties of programs and proofs abstractly. On the other hand, the study of the mathematical frameworks given by denotational semantics (which provides an interpretation of programs/proofs invariant under reduction/cut-elimination) sheds new light on how one can enrich the syntax and expressiveness of logics/programming languages. My past and current research topics are linear logic (and its differential version), structural proof theory, λ-calculus (and its variants with resources, with explicit substitutions, probabilistic, side effects, etc.), type theory (to characterize qualitative and quantitative properties of programs and proofs) and the study of operational and denotational semantics of the functional core of programming languages (and their implementation in abstract machines) with different parameter passing styles (call-by-name, call-by-value, call-by-need) in the light of some hints and tools coming from linear logic. I am currently involved in the project of writing a handbook on linear logic with other researchers.

A. Career

A.1 Education

February 2018: "*Qualifié* aux fonctions de Maître de Conférence" in *Section 25*–Mathematics, and *Section 27*–Computer Science (approved by the French National Council of Universities to apply for positions of associate professor in Computer Science in France).

February 2014: "*Qualifié* aux fonctions de Maître de Conférence" in *Section 27* – Computer Science (approved by the French National Council of Universities to apply for positions of associate professor in Computer Science in France).

June 2013: *PhD* in Computer Science/Philosophy, joint doctoral thesis between:

1. "École Doctorale de Science Mathématiques de Paris Centre (386) – spécialité Informatique" in the "Preuves, Programmes et Systèmes" laboratory (PPS, UMR 7126 CNRS) at the *Université Paris Diderot – Paris 7* (Paris, France),
2. "Dipartimento di Filosofia" at the *Università Roma Tre* (Rome, Italy).

Thesis: "Differential nets, experiments and reduction".
Advisors: Thomas Ehrhard (PPS, CNRS and Université Paris Diderot – Paris 7) and Lorenzo Tortora de Falco (Dipartimento di Filosofia, Università Roma Tre).
Distinction: very honorable.
Dissertation committee: V. M. Abrusci (chair, Università Roma Tre), M. Fiore (reviewer, University of Cambridge), L. Regnier (reviewer, Université Aix-Marseille), D. Mazza (LIPN, CNRS and Université Paris 13), L. Tortora de Falco, T. Ehrhard.

September 2009: "*Master 2*" (equivalent to Master's degree) with distinction in "Logique Mathématique et Fondements de l'Informatique" (specializing in Logic and Computer Science), "UFR de Mathématiques", *Université Paris Diderot – Paris 7*, Paris (France).
Dissertation: "Relational semantics and execution time in Multiplicative Linear Logic"
Advisor: Damiano Mazza (LIPN, CNRS and "Université Paris 13").
Distinction: Assez bien.

July 2009: "*Laurea Magistrale*" (equivalent to Master's degree) in Philosophy (specializing in Logic), Università degli Studi Roma Tre, Rome (Italy).
Dissertation: "From linear logic proof-nets to differential interaction nets" (in Italian).
Advisor: Lorenzo Tortora de Falco (Dipartimento di Filosofia, Università Roma Tre).
Distinction: 110/110 cum laude.

September 2007 – May 2008: *Erasmus* stay at the "Université Paris 1 Panthéon – Sorbonne" (UFR de Philosophie, Master LoPHisS - Logique, Philosophie et Histoire des Sciences).

December 2006: "*Laurea Triennale*" (equivalent to Bachelor's degree) in Philosophy (specializing in Logic), Università Roma Tre, Rome (Italy).
Dissertation: "The concept of infinity in the axiomatic set theory" (in Italian).
Advisor: Lorenzo Tortora de Falco (Dipartimento di Filosofia, Università Roma Tre).
Distinction: 110/110 cum laude.

September 2004: "*Laurea Triennale*" (equivalent to Bachelor's degree) in Physics, "Università La Sapienza", Rome (Italy).

July 2000: "*Maturità classica*" (equivalent to classical A-level), "Liceo Classico E. Q. Visconti", Rome (Italy).

A.2 International schools, training courses

October 2019 – January 2020: Training course "Academic Career Academy" for post-doctoral researchers, University of Bath, Bath, UK.

August 2015: Summer school "International School on Rewriting" (ISR 2015), Leipzig, Germany.

June 2015: Summer school "Topology, Algebra, and Categories in Logic 2015", satellite-event of the international conference TACL 2015, Ischia (Italy).

August 2013: Summer school "Linear Logic and Geometry of Interaction", satellite-event of the international conference CSL 2013, Turin (Italy).

February 2012: "Logic and Interactions 2012", Centre International de Rencontres Mathématiques, Marseille (France).

February 2010: Winter school in theoretical computer science "Game Semantics and Linear Logic", Département Informatique, École Normale Supérieure de Lyon, Lyon (France).

April 2008: Spring school "École Jeunes Chercheurs en Informatique Mathématique 2008", Centre International de Rencontres Mathématiques, Marseille (France).

A.3 Contracts/Awards/Fellowships/Grants

Since January 2024: *Lecturer* in Computer Science at the Department of Informatics, *University of Sussex* (Brighton, UK).

Since September 2022: *Maître de Conférences* (equivalent to associate professor) in Computer Science, *Aix-Marseille Université* (Marseille, France), with teaching at the IUT (Aix, France) and research at the LIS lab. Currently in voluntary layoff status.

July 2021 – September 2022: *Senior researcher* at the *Huawei* Edinburgh Research Centre (Edinburgh, UK), Programming Language team.

January 2019 – June 2021: *Post-doc* (research associate) in the Department of Computer Science of the *University of Bath* (Bath, United Kingdom), EPSRC Project "Typed Lambda-Calculi with Sharing and Unsharing".

December 2017 – November 2018: *Post-doc* in the "Dipartimento di Informatica – Scienza e Ingegneria" of the "Alma Mater Studiorum – *Università di Bologna*" (Bologna, Italy).

December 2016 – *Post-doc* (research associate) in the Department of Computer Science of the *University*

November 2017: *of Oxford* (Oxford, United Kingdom), EPSRC Project "Algorithmics and Semantics of Higher-order Computation".

September 2016 – January 2017: "*Vacataire*" (equivalent to temporary replacement teacher) in the "UFR de Philosophie" at the "*Université Paris 1 Panthéon – Sorbonne*" (Paris, France) to the lecture of the course in Mathematics (Licence 1 in Philosphy).

November 2015 – October 2016: *Post-doc* in the laboratory "Institut de Mathématiques de Marseille" (I2M, UMR 7373, *Aix-Marseille Université* and CNRS, Marseille, France), project A*MIDEX Laboratoire Hypatie, with a visit to Dipartimento di Matematica, *Università Roma Tre* (Rome, Italy).

September 2015 – January 2016: "*Vacataire*" (equivalent to temporary replacement teacher) in the "UFR de Philosophie" at the "*Université Paris 1 Panthéon – Sorbonne*" (Paris, France) to the practical of the course in Logic (Licence 3 in Philosphy).

September 2014 – October 2015: *Post-doc* in the laboratory "Preuves, Programmes et Systèmes" (PPS, UMR 7126, Université Paris Diderot – Paris 7 and CNRS, Paris, France), projects ANR Locali and CoQuaS.

September 2014 – January 2015: "*Vacataire*" (equivalent to temporary replacement teacher) in the "UFR de Philosophie" at the "*Université Paris 1 Panthéon – Sorbonne*" (Paris, France) to the practical of the course in Logic (Licence 3 in Philosphy) and Computer Science (Licence 2 in Philosophy).

September 2013 – August 2014: "*Attaché Temporaire d'Enseignement et de Recherche*" (ATER, equivalent to research and teaching assistant) in the "UFR d'Informatique" at the "*Université Paris Diderot – Paris 7*" (Paris, France).

September 2012 – August 2013: "*Attaché Temporaire d'Enseignement et de Recherche*" (ATER, equivalent to research and teaching assistant) in the "UFR d'Informatique" at the "*Université Paris Diderot – Paris 7*" (Paris, France).

January 2013 – December 2013: *Mobility grant* for PhD students by the "*Université Paris Diderot – Paris 7*" (Paris, France).

January 2012 – June 2012: "*Vacataire*" (equivalent to temporary replacement teacher) in the "UFR de Philosophie" at the "Université Paris 1 Panthéon – Sorbonne" for the theoretical and practical of the course in Logic, Licence 1 of Philosophy.

September 2010 – January 2011: "*Vacataire*" (equivalent to temporary replacement teacher) in the "UFR d'Informatique" at the "Université Paris Diderot – Paris 7" for the practical of the course of Introduction to programming (IF1), Licence 1 in Computer Science.

January 2010 – December 2012 : 3-years *PhD grant* by the "*Università Roma Tre*" (Rome, Italy).

2008 – 2009: *Mobility grant* for near-graduate students by the "*Univerità Roma Tre*" for a 1-month stay in the "Laboratoire d'Informatique de Paris Nord" at the "Université Paris 13".

2007 – 2008: *Erasmus grant* by the "*Università Roma Tre*" for a 9-months stay at the "Université Paris 1 Panthéon – Sorbonne" (UFR de Philosophie, Master LoPHisS - Logique, Philosophie et Histoire des Sciences).

February 2007: *Award* "Una Laurea d'Oro – Premio Lido di Ostia" for the dissertation for the "Laurea Triennale" in Philosophy.

B. Publications and ongoing work (see also https://dblp.org/pid/143/2693.html)

B.1 Publications in international journals

1. "Standardization and conservativity of a refined call-by-value lambda-calculus" (joint work with Luca

Paolini and Simona Ronchi Della Rocca). *Logical Methods in Computer Science*, Vol. 13, Issue 4 (special issue of selected papers of RTA/TLCA 2015), 2017. DOI: 10.23638/LMCS-13(4:29)2017. Available also on www.irif.fr/~giuliog/standardlmcs.pdf.

2. "Postponement of RAA and Glivenko's theorem, revisited" (joint work with Alberto Naibo). *Studia Logica* (special issue of *General Proof Theory, Celebrating 50 Years of Dag Prawitz's "Natural Deduction"*), Vol. 107, Issue 1, pp. 109–144, Springer, 2019. DOI: 10.1007/s11225-017-9781-5. Available also on www.irif.fr/~giuliog/raa.pdf.

3. "Abstract Machines for Open Call-by-Value" (joint work with Beniamino Accattoli). *Science of Computer Programming*, special issue of selected papers of FSEN 2017, Vol. 184, Elsevier, 2019. DOI: 10.1016/j.scico.2019.03.002. Available also on www.irif.fr/~giuliog/implementinglong.pdf.

4. "Gluing resource proof-structures: inhabitation and inverting the Taylor expansion" (joint work with Lorenzo Tortora de Falco and Luc Pellissier). *Logical Methods in Computer Science* (special issue of selected papers of CSL 2020), Vol. 18, Issue 2, 2022. DOI: 10.46298/lmcs-18(2:4)2022. Available also on www.irif.fr/~giuliog/gluing.pdf.

5. "The Theory of Call-by-Value Solvability" (joint work with Beniamino Accattoli). Proceedings of the ACM on Programming Languages, Volume 6, Issue ICFP (27th International Conference on Functional Programming, 2022), pp. 855–885, ACM, 2022. DOI: 10.1145/3547652. Available also on http://www.irif.fr/~giuliog/solvability.pdf.

6. "On Reduction and Normalization in the Computational Core" (joint work with Ugo de'Liguoro, Claudia Faggian, Riccardo Treglia). *Mathematical Structures in Computer Science*, Vol. 37, Issue 7, pp. 934–981, 2022. DOI: 10.1017/S0960129522000433. Available also on http://www.irif.fr/~giuliog/computational.pdf.

7. "Quantitative Inhabitation for Different Lambda Calculi in a Unifying Framework" (joint work with Victor Arrial and Delia Kesner). Proceedings of the ACM on Programming Languages, Volume 7, Issue POPL (50th ACM SIGPLAN Symposium on Principles of Programming Languages, 2023), ACM, 2023. DOI: 10.1145/3571244. Available on http://www.irif.fr/~giuliog/inhabitation.pdf.

B.2 Publications in proceedings of international conferences (with review committee)

8. "A semantical and operational account of call-by-value solvability" (joint work with Alberto Carraro). *Foundations of Software Science and Computation Structures* (proceedings of the 17th international conference FoSSaCS 2014), Lecture Notes in Computer Science, Vol. 8412, pp. 103–118, Springer, 2014. DOI: 10.1007/978-3-642-54830-7_7. Available also on www.irif.fr/~giuliog/fossacs.pdf.

9. "Standardization of a call-by-value lambda-calculus" (joint work with Luca Paolini and Simona Ronchi Della Rocca). *Typed Lambda Calculi and Applications* (proceedings of the 13th international conference on TLCA 2015), LIPIcs, Vol. 38, pp. 211–225, Schloss Dagstuhl, 2015. DOI: 10.4230/LIPIcs.TLCA.2015.211. Available also at www.irif.fr/~giuliog/standard.pdf.

10. "Head reduction and normalization in a call-by-value lambda-calculus". *Workshop on Rewriting Techniques for Program Transformations and Evaluation* (Proceedings of the 2nd International Workshop WPTE 2015), OASIcs, Vol. 46, pp. 3–17, Schloss Dagstuhl, 2015. DOI: 10.4230/OASIcs.WPTE.2015.3. Available also on www.irif.fr/~giuliog/headnormalization.pdf.

11. "Computing connected proof(-structure)s from their Taylor expansion" (joint work with Lorenzo Tortora de Falco and Luc Pellissier). *Formal Structures for Computation and Deduction* (Proceedings of the 1st International Conference FSCD 2016), LIPIcs, Vol. 52, pp. 20:1–20:18, Schloss Dagstuhl, 2016. DOI: 10.4230/LIPIcs.FSCD.2016.20. Available also on www.irif.fr/~giuliog/injtaylorLong.pdf.

12. "The Bang Calculus: an untyped lambda-calculus generalizing Call-by-Name and Call-by-Value" (joint work with Thomas Ehrhard). *Principles and Practice of Declarative Programming* (proceedings of the 18th International Symposium PPDP 2016), pp. 174–187, ACM, 2016. DOI: 10.1145/2967973.2968608. Available also on www.irif.fr/~giuliog/cbpv.pdf.

13. “Open Call-by-Value” (joint work with Beniamino Accattoli). *Asian Symposium on Programming Languages and Systems* (Proceedings of the 14th International Conference APLAS 2016). Lecture Notes in Computer Science, Vol. 10017, pp. 206–226, Springer, 2016. DOI: 10.1007/978-3-319-47958-3_12. Available also on www.irif.fr/~giuliog/opencbv.pdf.

14. “Implementing Open Call-By-Value” (joint work with Beniamino Accattoli). *Fundamentals of Software Engineering* (proceedings of the 7th international conference FSEN 2017), Lecture Notes in Computer Science, Vol. 10522, pp. 1–19, Springer, 2017. DOI: 10.1007/978-3-319-68972-2_1. Available also on www.irif.fr/~giuliog/implementing.pdf.

15. “Types of Fireballs” (joint work with Beniamino Accattoli). *Asian Symposium on Programming Languages and Systems* (Proceedings of the 16th international conference APLAS 2018), Lecture Notes in Computer Science, Vol. 11275, pp. 45–66, Springer, 2018. DOI: 10.1007/978-3-030-02768-1_3. Available also on www.irif.fr/~giuliog/typesfire.pdf.

16. “The Bang Calculus and the Two Girard’s Translations” (joint work with Giulio Manzonetto). *Linearity / Trends in Linear Logic and Applications* (proceedings of the 5th workshop Linearity and of the 2nd workshop TLLA 2018, satellite-event of the international conference FSCD 2018). Electronic Proceedings in Theoretical Computer Science, Vol. 292, pp. 15–30, 2019. DOI: 10.4204/EPTCS.292.2. Available also on www.irif.fr/~giuliog/girardtranslations.pdf.

17. “Towards a Semantic Measure of the Execution Time in Call-by-Value lambda-Calculus”. *Developments in Computational Models / Intersection Types and Related Systems* (proceedings of 12th workshop DCM 2018 and of the 9th workshop ITRS 2018, a satellite-event of the international conferences FSCD 2018 and LICS 2018). Electronic Proceedings in Theoretical Computer Science, Vol. 293, pp. 57–72, 2019. DOI: 10.4204/EPTCS.293.5. Available also on www.irif.fr/~giuliog/executiontimecbv.pdf.

18. “Types by Need” (joint work with Beniamino Accattoli and Maico Leberle). *European Symposium on Programming* (proceedings of the 28th European Symposium ESOP 2019). Lecture Notes in Computer Science, Vol. 11423, pp. 410–439, Springer, 2019. DOI: 10.1007/978-3-030-17184-1_15. Available also on www.irif.fr/~giuliog/need.pdf.

19. “Proof-Net as Graph, Taylor Expansion as Pullback” (join work with Luc Pellissier and Lorenzo Tortora de Falco). *Logic, Language, Information, and Computation* (proceedings of the 26th international workshop WoLLIC 2019). Lecture Notes in Computer Science, Vol. 11541, pp. 282–300, Springer, 2019. DOI: 10.1007/978-3-662-59533-6_18. Available also on www.irif.fr/~giuliog/graph.pdf.

20. “Crumbling Abstract Machines” (joint work with Beniamino Accattoli, Andrea Condoluci, and Claudio Sacerdoti Coen). *Principles and Practice of Declarative Programming* (Proceedings of the 21st International Symposium PPDP 2019), pp. 4:1–4:15, ACM, 2019. DOI: 10.1145/3354166.3354169. Available also on www.irif.fr/~giuliog/abnormal.pdf.

21. “Factorization and Normalization, Essentially” (joint work with Beniamino Accattoli and Claudia Faggian). *Asian Symposium on Programming Languages and Systems* (proceedings of the 17th international conference APLAS 2019), Lecture Notes in Computer Science, Vol. 11893, pp. 159–180, Springer, 2019. DOI: 10.1007/978-3-030-34175-6_9. Available also on www.irif.fr/~giuliog/essential.pdf.

22. “Glueability of resource proof-structures: inverting the Taylor expansion” (joint work with Luc Pellissier and Lorenzo Tortora de Falco). *Computer Science Logic* (proceedings of the 28th international conference CSL 2020), LIPIcs, Vol. 152, pp. 24:1–24:18, Schloss Dagstuhl, 2020. DOI: 10.4230/LIPIcs.CSL.2020.24. Available also on www.irif.fr/~giuliog/taylor.pdf.

23. “Decomposing Probabilistic lambda-Calculus” (joint work with Ugo Dal Lago and Willem Heijltjes). *Foundations of Software Science and Computation Structures* (proceedings of the 23rd international conference FoSSaCS 2020), Lecture Notes in Computer Science, Vol. 12077, pp. 136–156, Springer, 2020. DOI: 10.1007/978-3-030-45231-5_8. Available also on www.irif.fr/~giuliog/prob.pdf.

24. “Categorifying Non-Idempotent Intersection Types” (joint work with Federico Olimpieri). *Computer Science Logic* (Proceedings of the 29th International Conference CSL 2021), LIPIcs, Vol. 183, pp. 25:1–25:24, Schloss Dagstuhl, 2021. DOI: 10.4230/LIPIcs.CSL.2021.25. Available also on

www.irif.fr/~giuliog/bicategory.pdf.

25. “Factorize Factorization” (joint work with Beniamino Accattoli and Claudia Faggian). *Computer Science Logic* (proceedings of the 29th international conference CSL 2021), LIPIcs, Vol. 183, pp. 6:1–6:25, Schloss Dagstuhl, 2021. DOI: 10.4230/LIPIcs.CSL.2021.6. Available also on www.irif.fr/~giuliog/modular.pdf.

26. “A Deep Quantitative Type System” (joint work with Willem Heijltjes and Joseph Paulus). *Computer Science Logic* (proceedings of the 29th international conference CSL 2021), LIPIcs, Vol. 183, pp. 24:1–24:24, Schloss Dagstuhl, 2021. DOI: 10.4230/LIPIcs.CSL.2021.24. Available also on www.irif.fr/~giuliog/diit.pdf.

27. “Factorization in Call-by-Name and Call-by-Value Calculi via Linear Logic” (joint work with Claudia Faggian). *Foundations of Software Science and Computation Structures* (proceedings of the 24th International Conference FoSSaCS 2021). Lecture Notes in Computer Science, Vol. 12650, pp. 205–225, Springer, 2021. DOI: 10.1007/978-3-030-71995-1_11. Available also on www.irif.fr/~giuliog/fact.pdf.

28. “A Deep Inference System for Differential Linear Logic” (joint work with Matteo Acclavio), *Linearity / Trends in Linear Logic and Applications* (proceedings 2nd joint international workshop Linearity & TLLA 2020, satellite-event of the international conference FSCD 2020), Electronic Proceedings in Theoretical Computer Science, Vol. 353, pp. 26–49, 2021. DOI: 10.4204/EPTCS.353.2. Available also on www.irf.fr/giuliog/deepdiff.pdf.

29. “Strategies for Asymptotic Normalization” (joint work with Claudia Faggian). *Formal Structures for Computation and Deduction* (proceedings of the 7th international conference FSCD 2022), LIPIcs, Vol. 228, pp. 17:1–17:24, Schloss Dagstuhl, 2022. DOI: 10.4230/LIPIcs.FSCD.2022.17. Available also on www.irif.fr/~giuliog/asymptotic.pdf.

30. “Strong Call-by-Value and Multi Types” (joint work with Beniamino Accattoli and Maico Leberle). *International Colloquium on Theoretical Aspects of Computing* (proceedings of the 20th international conference ICTAC 2023), Lecture Notes in Computer Science, Vol. 14446, pp. 136–156, Springer, 2023. DOI: 10.1007/978-3-031-47963-2_13. Available also on www.irif.fr/~giuliog/strong.pdf.

31. “Infinitary Cut-Elimination via Finite Approximations” (joint work with Matteo Acclavio and Gianluca Curzi). *Computer Science Logic* (proceedings of the 32nd international conference CSL 2024), LIPIcs, Vol. 288, pp. 8:1–8:19, Schloss Dagstuhl, 2024. DOI: *10.4230/LIPICS.CSL.2024.8*. Available also on www.irif.fr/~giuliog/infinitarycut.pdf.

32. “Confluence for Proof-Nets via Parallel Cut Elimination” (joint work with Giulia Manara, Lorenzo Tortora de Falco and Lionel Vaux Auclair). *Logic for Programming, Artificial Intelligence and Reasoning* (proceedings of 25th international conference LPAR 2024), EPiC Series in Computing, Vol. 100, pp. 464–483, Easychair, 2024. DOI: *10.29007/vkfn*. Available also on *pageperso.lis-lab.fr/~giulio.guerrieri/parallel.pdf*

33. “The Benefits of Diligence” (joint work with Victor Arrial and Delia Kesner). *Automated Reasoning - 12th International Joint Conference* (proceedings, part II, of IJCAR 2024), Lecture Notes in Computer Science, Vol. 14740, pp. 338–359, Springer, 2024. DOI: 10.1007/978-3-031-63501-4_18. Available also on pageperso.lis-lab.fr/~giulio.guerrieri/diligence.pdf.

34. “Genericity through Stratification” (joint work with Victor Arrial and Delia Kesner). *Logic in Computer Science* (proceedings of the 39th Annual ACM/IEEE Symposium LICS 2024), pp. 5:1–5:15, ACM, 2024. DOI: 10.1145/3661814.3662113. Available also on pageperso.lis-lab.fr/~giulio.guerrieri/genericity.pdf.

35. “Meaningfulness and Genericity in a Subsuming Framework (Invited Talk)” (joint work with Delia Kesner and Victor Arrial). *Formal Structures for Computation and Deduction* (proceedings of the 9th International Conference FSCD 2024), LIPIcs, Vol. 299, pp. 1:1–1:24, Schloss Dagstuhl, 2024. DOI: *10.4230/LIPIcs.FSCD.2024.1*. Available also on *pageperso.lis-lab.fr/~giulio.guerrieri/meaningful.pdf*.

B.3 Communications to international workshops with selection committee (without publication or with informal proceedings)

1. “Natural deduction for intuitionistic differential linear logic” (joint work with Mattia Petrolo), to the workshop *Functions, Proofs, Constructions*, 20-23 February 2014, “Universität Tübingen” (Germany); and to the international conference *Logic Colloquium 2014*, 14-18 July 2014, Wien (Austria). Available on www.irif.fr/~giuliog/DiLL_NJ.pdf.
2. “A new point of view on the Taylor expansion of proof-nets and uniformity” (with Lorenzo Tortora de Falco), to *Linearity 2014* (satellite-workshop of the international conference CSL-LICS 2014), 13 July 2014, Wien (Austria). Available on www.irif.fr/~giuliog/prototaylor.pdf.
3. “Injectivity of relational semantics for (connected) MELL proof-nets via Taylor expansion” (with Lorenzo Tortora de Falco and Luc Pellissier), to the meeting *XXV Incontro AILA*, 14-17 April 2014, Scuola Normale Superiore, Pisa (Italy); to the workshop *Termgraph 2014* (satellite-workshop of the international conference RTA-TLCA 2014), 13 July 2014, Wien (Austria); and to the conference *Topology, Algebra, and Categories in Logic 2015* (TACL 2015), 21-26 June 2015, Ischia (Italy). Abstracts available on www.irif.fr/~giuliog/injtaylor.pdf and www.irif.fr/~giuliog/abstractTACL.pdf.
4. “Postponement of RAA and Glivenko's theorem, revisited” (joint work with Alberto Naibo), to the international conference *General Proof Theory, Celebrating 50 Years of Dag Prawitz's "Natural Deduction"*, 27-29 November 2015, Tubingen (Germany). Available on www.irif.fr/~giuliog/raa.pdf.
5. “Relational type-checking for MELL proof-structures” (joint work with Luc Pellissier and Lorenzo Tortora de Falco), to *Developments in Implicit Computational Complexity* (DICE 2016, a satellite-workshop of the international conference ETAPS 2016) 2-3 April 2016, Eindhoven (Netherlands); and *Intersection Types and Related Systems* (ITRS 2016, a satellite-workshop of the international conference FSCD 2016) 25 June 2016, Porto (Portugal). Available on www.irif.fr/~giuliog/typecheck.pdf.

B.4 Technical reports, submissions and preprints

1. “Relational type-checking for MELL proof-structures. Part 1: Multiplicatives” (joint work with Luc Pellissier and Lorenzo Tortora de Falco), technical report, 2016. Available on www.irif.fr/~giuliog/typecheck.pdf.
2. “Syntax, Taylor expansion and relational semantics of MELL proof-structures: an unusual approach” (joint work with Luc Pellissier and Lorenzo Tortora de Falco), technical report, 2016. Available on www.irif.fr/~giuliog/technicalmell.pdf.
3. “Semantic Bounds and Strong Call-by-Value” (joint work with Beniamino Accattoli and Maico Leberle), technical report, 2021. Available on www.irf.fr/giuliog/strongcbv.pdf.
4. “The Benefit of Diligence” (joint work with Victor Arrial and Delia Kesner), submitted to *Foundations of Software Science and Computation Structures* (27th international conference FoSSaCS 2024). 2023. Available on www.irif.fr/~giuliog/diligent.pdf.

C. Activities

C.1 Invited talk in international workshops with proceedings

1. 16th workshop on *Logical and Semantic Frameworks with Applications* (LSFA 2021, satellite-event of the international conference FSCD 2021), 23-24 July 2021, Buenos Aires (Argentina). https://mat.unb.br/lsfa2021/

2. 3rd Joint Workshop *Linearity* and *Trends in Linear Logic and Applications* (Linearity & TLLA 2022, satellite event of the international conference FSCD 2022), 31 July–1 August, Haifa (Israel). https://lipn.univ-paris13.fr/LinearityTLLA2022/

C.2 Program committee member of international conferences/workshops with proceedings

1. Fifth International *Workshop on Rewriting Techniques for Program Transformations and Evaluation* (WPTE 2018, a satellite-event of the international conference FSCD 2018 and FLOC 2018), 7 July 2018, Oxford (United Kingdom). http://researchers.lille.inria.fr/niehren/WPTE-2018/main.html
2. Third International Workshop on *Trends in Linear Logic and Applications* (TLLA 2019, a satellite-event of the international conference FSCD 2019), 29-30 June 2019, Dortmund (Germany). https://lipn.univ-paris13.fr/TLLA/2019/
3. Tenth International Workshop on *Intersection Types and Related Systems* (ITRS 2021, a satellite-event of the international conference FSCD 2021), 17 July 2021, Buenos Aires (Argentina). http://www.di.unito.it/~deligu/ITRS2021/
4. Fifth International Workshop on *Trends in Linear Logic and Applications* (TLLA 2021, a satellite-event of the international conference LICS 2021), 27-28 June 2021, Dortmund (Germany). https://lipn.univ-paris13.fr/TLLA/2021/
5. Nineteenth *Asian Symposium on Programming Languages and Systems* (APLAS 2021), 17-22 October 2021, Chicago, Illinois (USA). https://conf.researchr.org/home/aplas-2021
6. Thirty-first International Conference *Computer Science Logic* (CSL 2023), 13-16 February 2023, Warsaw (Poland). https://csl2023.mimuw.edu.pl/
7. Eighteenth International Workshop on *Logical and Semantic Frameworks, with Applications* (LSFA 2023, a satellite-event of the international conference FSCD 2023), 1-2 July 2023, Rome (Italy). https://sites.google.com/ufg.br/lsfa2023

C.3 Supervisor of final projects or dissertations for a Master's degree.

March – July 2021: Victori Arrial. "Solvability in the bang calculus". M2 MPRI, Université de *Paris-Cité* (Paris, France). Co-supervised with Delia Kesner.

March – July 2021: Nathan Koskas de Diego. "Semantic study of the least-level strategy in the bang calculus". M2 MPRI, Université de *Paris-Cité* (Paris, France). Co-supervised with Delia Kesner.

March – July 2021: Giulia Manara. "Study of parallel reduction for linear logic proof-nets". M2 MAAP, *Aix-Marseille* Université (Marseille, France). Co-supervised with Lionel Vaux Auclair.

C.4 Supervisor of PhD theses.

Since October 2021: Victori Arrial. "Solvability in Intuitionistic and Classical Call-by-Push-Value". Université de *Paris-Cité* (Paris, France), École Doctorale 386. Co-supervised with Delia Kesner.

Since April 2024: Vincent Sommella. "Concurrent games and relational semantics". University of *Sussex* (Brighton, UK).

C.5 Member of PhD these committees.

October 2022: Riccardo Treglia. "The computational core: reduction theory and intersection type discipline". Università di *Torino* (Turin, Italy). Supervised by Ugo de'Liguoro.

November 2022: Loïc Peyrot. "From Proof Terms to Programs An operational and quantitative study of intuitionistic Curry-Howard calculi". Université de *Paris-Cité* (Paris, France), École Doctorale 386. Supervised by Delia Kesner.

C.6 Teaching in schools

August 2023: "The lambda-calculus: from simple types to non-idempotent intersection types". 34th *European Summer School in Logic, Language and Information* (ESSLLI 2023). University of Ljubljana, Slovenia.

July – August 2024: "The lambda-calculus: from simple types to non-idempotent intersection types". 39th *Escuela de Ciencias Informaticás* (ECI 2024). Universidad de Buenos Aires, Argentina.

C.7 Teaching at universities (731h in total)

February – May 2024: Class tutor (practical, 13h) of the course "Operating Systems" for the Bachelor degree in Computer Science (University of *Sussex*, Brighton, UK).

April – May 2023: Class tutor and marker (practical, 32h) of the course "Development of Web Interfaces" for the Bachelor degree in Computer Science (*Aix-Marseille* Université, Aix, France).

March – April 2023: Class tutor and marker (theoretical and practical, 20h) of the course "Quality of Development" for the Bachelor degree in Computer Science (*Aix-Marseille* Université, Aix, France).

February – March 2023: Class tutor (practical, 13h) of the course "Communication at Low Level" for the Bachelor degree in Computer Science (*Aix-Marseille* Université, Aix, France).

December 2022 – January 2023: Class tutor (theoretical and practical, 12h) of the course "Introduction to AI" for the Bachelor degree in Computer Science (*Aix-Marseille* Université, Aix, France).

October – November 2022: Class tutor (practical, 13h) of the course "Network architecture" for the Bachelor degree in Computer Science (*Aix-Marseille* Université, Aix, France).

February – May 2021: Class tutor (practical, 33h) of the course "Logic and Semantics of Programming Languages" for the Bachelor and Master's degrees in Computer Science and Mathematics (University of *Bath*, Bath, United Kingdom).

February – May 2021: Class tutor (practical, 33h) of the course "Functional Programming" for the Bachelor's degree in Computer Science and Mathematics (University of *Bath*, Bath, United Kingdom).

October 2020 – January 2021: Class tutor (practical, 20h) of the course "Foundations of Computation" for the Bachelor and Master's degrees in Computer Science and Mathematics (University of *Bath*, Bath, United Kingdom).

February – May 2020: Class tutor (practical, 33h) of the course "Functional Programming" for the Bachelor's degree in Computer Science and Mathematics (University of *Bath*, Bath, United Kingdom).

February – April 2019: Class tutor (practical, 33h) of the course "Functional Programming" for the Bachelor's degree in Computer Science and Mathematics (University of *Bath*, Bath, United Kingdom).

October – December 2018: "Esercitatore" (practical, 16h) of the course "Logic" for the Bachelor's degree in Computer Science (Università di *Bologna*, Bologna, Italy).

February – May 2018: "Esercitatore" (practical, 16h) of the course "Algorithms and Data Structures" for the Bachelor's degree in Computer Science (Università di *Bologna*, Bologna, Italy).

February – May 2018: "Esercitatore" (practical, 26h) of the course "Programming" for the Bachelor's degree in Mathematics (Università di *Bologna*, Bologna, Italy).

October – December 2017:	Class tutor and marker (practical, 16h) of the course “Automata, Logic and Games” for the Master’s degree in Computer Science (University of *Oxford*, Oxford, United Kingdom).
October – December 2017:	Class tutor and marker (practical, 8h) of the course “Foundations of Computer Science” for the Master’s degree in Computer Science (University of *Oxford*, Oxford, United Kingdom).
September 2016 – January 2017:	“Chargé de cours-TD” (theoretical and practical, 39h) of the course “Introduction to Mathematics”, Bachelor’s degree in Philosophy (Univ. *Paris 1* Panthéon – Sorbonne, Paris, France).
September 2015 – January 2016:	“Chargé de TD” (practical, 26h) of the course “Logic”, Bachelor’s degree in Philosophy (Université *Paris 1* Panthéon – Sorbonne, Paris, France).
September 2014 – January 2015:	“Chargé de cours-TD” (theoretical and practical, 18h) of the course “Introduction to Computer Science”, Bachelor’s degree in Philosophy (Univ. *Paris 1*, Panthéon – Sorbonne, Paris, France).
September 2014 – January 2015:	“Chargé de TD” (practical, 26h) of the course “Logic” for the Bachelor’s degree in Philosophy (Univ. *Paris 1*, Panthéon – Sorbonne, Paris, France).
January 2014 – June 2014:	“Chargé de TP” (practical, 14h) of the course ED6 (Environments and development tools) for the Bachelor’s degree in Computer Science (Univ. Paris Diderot – *Paris 7*, Paris, France).
January 2014 – June 2014:	“Chargé de TD” (practical, 26h) of the course LO6 (Logic) for the Bachelor’s degree in Computer Science (Univ. Paris Diderot – *Paris 7*, Paris, France).
September 2013 – January 2014 :	“Chargé de TP” (practical, 26h) of the course PF5 (Functional Programming) for the Bachelor’s degree in Computer Science (Univ. Paris Diderot – *Paris 7*, Paris, France).
September 2013 – January 2014:	“Chargé de cours-TD” (theoretical and practical, 26h) of the course IF1 (Introduction to programming) for the Bachelor’s degree in Mathematics (Univ. Paris Diderot – *Paris 7*, Paris, France).
January 2013 – June 2013:	“Chargé de TP” (practical, 26h) of the course PR6 (Network Programming) for the Bachelor’s degree in Computer Science (Univ. Paris Diderot – *Paris 7*, Paris, France).
September 2012 – January 2013:	“Chargé de cours-TD” (theoretical and practical, 26h) of the course IF1 (Introduction to programming) for the Bachelor’s degree in Mathematics Applied to Social Science (Univ. Paris Diderot – *Paris 7*, Paris, France).
September 2012 – January 2013:	“Chargé de TP” (practical, 26h) of the course OL3 (Logic tools for computer science) for the Bachelor’s degree in Computer Science (Univ. Paris Diderot – *Paris 7*, Paris, France).
January 2012 – June 2012:	“Chargé de cours-TD” (theoretical and practical, 72h) of the course “Logic” for the Bachelor’s degree in Philosophy (Univ. *Paris 1*, Panthéon – Sorbonne, Paris, France).
September 2010 – January 2011:	“Chargé de TP” (practical, 56h) of the course IF1 (Introduction to programming), for the Bachelor’s degree in Computer Science and Mathematics (Univ. Paris Diderot – *Paris 7*, Paris, France).

C.6 Other

- Responsible for the *work-study course* for the Bachelor’s degree in Computer Science at the “Institut Universitaire de Technologie” of the Aix Marseille Université (Aix, France), since October 2022.
- Responsible for the *Mathematical Foundations Seminars* at the Department of Computer Science of the University of *Bath* (Bath, United Kingdom), January 2019 – June 2021 (see wiki.bath.ac.uk/display/MFS/Mathematical+Foundations+Seminars).
- Responsible for the *Huawei Tech Talk Seminars* at the Programming Language team of the *Huawei* Edinburgh Research Centre (Edinburgh, United Kingdom), January 2021 – September 2022.
- Co-organizer of the workshop *New Trends in Linear Logic Proof-Nets*, 21-22 December 2015, Università

Roma Tre (Rome, Italy), for the GDRI *Linear Logic*. http://linear-logic.org/en/events/meeting-2015-12-21/

- Co-organizer of the PhD students network *Vérité et Preuves* (2010/2011) and its final meeting on 21-22 October 2011, Université Paris Diderot–Paris 7 and Université Paris 1 Panthéon–Sorbonne (Paris, France). https://www.seiller.org/Projet.html
- Member of the *Associazione Italiana di Logica e sue Applicazioni* (AILA) since 2010.
- Subreviewer for *Theoretical Computer Science*, Volume 606, 2015; *Logic in Computer Science* (proceedings of the international conference LICS 2016), 2016; *Computer Science in Logic* (proceedings of the international conference CSL 2017), 2017; *Formal Structures for Computation and Deduction* (proceedings of the international conference FSCD 2017), 2017; *Computer Science in Logic* (proceedings of the international conference CSL 2018), 2018; *Trends in Linear Logic & Linearity* (proceedings of the international workshop Linearity/TLLA 2018), 2018; *International Colloquium in Automata, Languages and Programming* (proceedings of ICALP 2019); *26th Workshop on Logic, Language, Information and Computation* (proceedings of WoLLIC 2019), 2019; *Logical Methods in Computer Science*, 2019; *Studia Logica*, 2019; *Formal Structures for Computation and Deduction* (proceedings of the international conference FSCD 2020), 2020; *Archive for Mathematical Logic*, 2020; *Foundations of Software Science and Computation Structures* (proceedings of the international conference FoSSaCS 2021); *Mathematical Structures in Computer Science*, 2021; *International Colloquium in Automata, Languages and Programming* (proceedings of ICALP 2021); *Formal Structures for Computation and Deduction* (proceedings of the international conference FSCD 2021), 2021; *Computer Science in Logic* (proceedings of the international conference CSL 2022), 2022; *Logic in Computer Science* (proceedings of the international conference LICS 2022), 2022; *Logic in Computer Science* (proceedings of the international conference LICS 2024), 2024; *Formal Structures for Computation and Deduction* (proceedings of the international conference FSCD 2024), 2024.
- Reviewer for *Mathematical Reviews* (AMS) since March 2017.
- Interviewed and ranked 6th for the *Maître de Conférences* position in Computer Science (27 MCF 0199) at the Institut Galilée of the Université Paris 13 (France), in May 2016.
- Interviewed and ranked 3rd for the *Maître de Conférences* position in Computer Science (27 MCF 812) at the Faculté d'Economie et Gestion of the Aix Marseille Université (France), in May 2017.
- Interviewed and ranked 6th for the *Maître de Conférences* position in Computer Science (27 MCF 1557) at the IUT de Sénart-Fontainebleau of the Université Paris 12 (France), in May 2018.
- Interviewed for the *Professeur* position in Computer Science at the École Polythécnique (Paris, France) in May 2019.
- Interviewed and ranked 5th for the *Maître de Conférences* position in Computer Science (27 MCF 4757) at the Department of Computer Science of the Université Paris 12 (France), in June 2020.
- Interviewed and ranked 3rd for the *Maître de Conférences* position in Computer Science (27 MCF 4725) at the Department of Law of the Université Paris 12 (France), in June 2020.
- Interviewed and ranked 6th for the *Maître de Conférences* position in Computer Science (27 MCF 4412) at the Department of Computer Science of the Université d'Orléans (France), in June 2020.
- Interviewed and ranked among the three best candidates for the *Assistant Professor* position in Computer Science at the Bernoulli Institute and the CogniGron research center of the University of Groningen (the Netherlands), in September 2020.
- Interviewed and ranked 2nd for the *Maître de Conférences* position in Mathematics (25 MCF 967) at the Department of Matematics of the Aix-Marseille Université (France), in June 2021.
- Interviewed and ranked 1st for the *Maître de Conférences* position in Computer Science (27 MCF 1053) at the Department of Computer Science of the Aix-Marseille Université (France), in June 2022.
- Interviewed and ranked 1st for the *Lecturer* position in Computer Science at the Department of Informatics of the University of Sussex (UK), in July 2023.

D. Skills

D.1 Languages

Italian (mother tongue), French (fluent), English (fluent), Spanish (basic).

D.2 Computer Skills

- *Programming languages*: OCaml, Haskell, C, C++, Java, JavaFX, Python.
- *Markup languages*: LaTeX, HTML, XML.
- *Office Software*: Word, Excel, PowerPoint, Access, and their corresponding open-source versions.

Brighton (UK), 30 July 2024.