CURRICULUM VITAE et STUDIORUM
Lorenzo Tortora de Falco

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Present position:

UNIVERSITY ROMA TRE

Associate professor of Logic (since march 1, 2005)

Previous positions:

- UNIVERSITY ROMA TRE
  Researcher in Logic (from october 2002 until february 2005).
- UNIVERSITY ROMA TRE
  Research fellow (2001-2002).
- UNIVERSITY ROMA TRE
  "Professore a contratto" (academic year 2000/2001 and 2001/2002) of the Faculty of Science.
- UNIVERSITY PARIS X-NANTERRE
  From september 1998 until august 2000, "Attaché Temporaire d'Enseignement et de Recherche" (A.T.E.R.)
- UNIVERSITY PARIS 7
  Fellow of the Istituto Nazionale di Alta Matematica (INDAM), and later fellow of the Consiglio Nazionale delle Ricerche (CNR) in the Paris 7 Logic Group ("L'Equipe de Logique") from 1993 until 1997

Place and date of birth:

Born 27 september 1968 in Milano, Italy

Education:

- UNIVERSITY PARIS 7
  "Doctorat de Logique et Fondements de l'Informatique" (PHD in "Logic and

Theoretical Computer Science"), january 2000
Title of the thesis: "Réseaux, cohérence et expériences obsessionnelles" (supervisor: Vincent Danos)

- UNIVERSITY PARIS 7
  Diplôme d'Etudes Approfondies (DEA) de "Logique et Fondements de l'Informatique" (master degree in "Logic and Theoretical Computer Science"), in september 1993
- UNIVERSITY LA SAPIENZA OF ROME
  "Laurea" in Mathematics, October 1991

Grants and awards:

- Fellowship of the Istituto Nazionale di Alta Matematica (INDAM) at the University Paris 7 in 1993
- Fellowship of the Consiglio Nazionale delle Ricerche (CNR) at the University Paris 7 in 1994
- Second fellowship of the Consiglio Nazionale delle Ricerche (CNR) at the University Paris 7 in 1995 and 1996
- Qualification aux fonctions de Maître de Conférences (section 25 "Mathématiques" and section 27 "Informatique") granted by the french Conseil National des Universités (France, 2000), valid 4 years
- Winner of the prize AFIT 2000, for one among the best 5 PHD thesis in Theoretical Computer Science, prize from the "Association Française d'Informatique Théorique"
- 21 june-20 july 2004: Maître de Conférences invité at the Univiversity Paris 7 (research grant of 1 month) in the Preuves Programmes and Systèmes (PPS) research group
- 1-30 april 2010: Professeur invité at the Univiversity Paris 7 (visiting professor) in the Preuves Programmes and Systèmes (PPS) research group, invited by Thomas Ehrhard (CNRS- Université Paris 7)
- Qualification aux fonctions de Professeur des universités granted by the french Conseil National des Universités section 25 "Mathématiques" (02/02/2011, numéro qualification: 1112510 1274) and section 27 "Informatique" (13/01/2011 numéro qualification: 11127101274). The french "qualification" allows to apply for a position of full professor in France
- 1-30 june 2011: Professeur invité at the Univiversity Paris 13 (visiting professor), L.I.P.N. ("Laboratoire d'Informatique de l'Université Paris Nord"), invited by Damiano Mazza (CNRS- Université Paris 13)

- 2-18 june 2012: Visiting Professor at the Univiversity Paris 13, L.I.P.N. ("Laboratoire d'Informatique de l'Université Paris Nord"), invited by Damiano Mazza (CNRS- Université Paris 13)

- 21-28 april 2013: Visiting Professor at the Univiversity Paris 13, L.I.P.N. ("Laboratoire d'Informatique de l'Université Paris Nord"), invited by Damiano Mazza (CNRS- Université Paris 13)

- "Abilitato alla prima fascia nel settore concorsuale 11/C2 Logica, storia e filosofia della scienza" (from 4/12/2013 until 4/12/2019). The italian "abilitazione alla prima fascia" is the necessary condition to apply for a position of full professor in Italy. It is delivered by the MIUR (italian ministry of University and Research) and is very much like, for example, the french "Qualification aux fonctions de Professeur des universités"

- "Abilitato alla prima fascia nel settore concorsuale 01/A1 Logica matematica e matematiche complementari" (from 7/3/2014 until 7/3/2020). The italian "abilitazione alla prima fascia" is the necessary condition to apply for a position of full professor in Italy. It is delivered by the MIUR (italian ministry of University and Research) and is very much like, for example, the french "Qualification aux fonctions de Professeur des universités"

- Qualification aux fonctions de Professeur des universités granted by the french Conseil National des Universités section 25 "Mathématiques" (03/02/2016, numéro qualification: 16125101274, valid until 31/12/2020) and section 27 "Informatique" (04/02/2016, numéro qualification: 16127101274, valid until 31/12/2020)

- 24 march-11 april and 18 april-1 may 2019: Visiting Professor ("Professeur invité") for one month at École Normale Supérieure de Lyon ("Laboratoire de l'Informatique du Parallelisme"), invited by Olivier Laurent (CNRS- ENS Lyon)

- "Abilitato alla prima fascia nel settore concorsuale 11/C2 Logica, storia e filosofia della scienza" (from 2/1/2020 until 2/1/2029). The italian "abilitazione alla prima fascia" is the necessary condition to apply for a position of full professor in Italy. It is delivered by the MIUR (italian ministry of University and Research) and is very much like, for example, the french "Qualification aux fonctions de Professeur des universités"

- "Abilitato alla prima fascia nel settore concorsuale 01/A1 Logica matematica e matematiche complementari" (from 14/1/2020 until 14/1/2029). The italian "abilitazione alla prima fascia" is the necessary condition to apply for a position of full professor in Italy. It is delivered by the MIUR (italian ministry of University and Research) and is very much like, for example, the french "Qualification aux fonctions de Professeur des universités"

- 23 january-12 february and 3-14 july 2022: Visiting Professor ("Professeur invité"), at Institut de Mathématiques de Marseille, invited by Laurent Regnier and Lionel Vaux (Aix-Marseille Université)

Known languages:

Bilingual italian-french, fluent english (und gebrochenes deutsch)

International scientific activities:

- Since march 1998, reviewer for "Zentralblatt für Mathematik"
- Since may 2006, reviewer for "Mathematical Reviews"
- Referee for the international conferences: "Computer Science Logic 1998", "Logic in Computer Science 1999", "Logic in Computer Science 2003", "Computer Science Logic 2004", "Typed λ-calculus and Applications 2005", "Typed λ-calculus and Applications 2007", "Ninth International Symposium on Functional and Logic Programming FLOPS 2008", "Computer Science Logic 2008", 'Typed λ-calculus and Applications 2009", "Developments in Implicit Computational Complexity 2010", "Logic in Computer Science 2012", "Typed Lambda-Calculus and Applications 2013", "Logic in Computer Science 2014", "Developments in Implicit Computational Complexity 2016" and for the journal "Annals of Pure and Applied Logic"
- Referee for the evaluation of the "Vinci 2010" project of the *Università italo-francese*, and of the research project "Firb (Futuro in Ricerca) 2012" funded by the italian *Ministero dell'Isruzione dell'Università e della Ricerca (MIUR)*
- Member of the Rome site of the european project *Training and Mobility of Researchers* "Linear Logic in Theoretical Computer Science" (1998-2002)
- Coordinator for the philosophy department (University Roma Tre) of the european program *Erasmus-Socrates*, from december 2002 until november 2013
- Coordinator for the mathematics department (University Roma Tre) of the european program *Erasmus-Socrates*, since december 2013
- Member of the organizing committee of the workshop "The geometrical approach to logic", Certosa di Pontignano (Siena) , 19-21 april 2001
- Member of the organizing committee of the conference of the group "Logic, Mathematics and Philosophy" held at the University of Roma Tre, 2-4 may 2002
- Member of the project of doctoral school "Logique Mathématique et Informatique Théorique" between the University Roma Tre and the University Aix-Marseille 2, supported by the french-italian University (in the framework of

the "Vinci" program, 2002-2004)

- Member of the bilateral research project 2004-2005 between the italian C.N.R. (Consiglio Nazionale delle Ricerche) and the french C.N.R.S. (Centre National de la Recherche Scientifique) "Interaction and complexity" ("Interazione e complessità", "Interaction et complexité") (italian responsible: Marco Pedicini, french responsible: Patrick Baillot)

- Member of the bilateral research project 2006-2007 between the italian C.N.R. (Consiglio Nazionale delle Ricerche) and the french C.N.R.S. (Centre National de la Recherche Scientifique) "Interaction and complexity" ("Interazione e complessità", "Interaction et complexité") (italian responsible: Marco Pedicini, french responsible: Olivier Laurent)

- Organizer of the workshop "semantics" (Torino, 17-18 september 2004), in the framework of the research project "From Proofs to Computation with Linear Logic", funded by the italian research ministry (MIUR)

- Member of the Rome site of the project funded by the italian Ministero dell'Università e della Ricerca (MIUR) "Rete italo-francese in logica e geometria della computazione" (1/1/06-31/12/08)

- Member of the organizing committee of the workshop "Geometria della logica", Università di Roma Tre, held after the defense of the phd thesis of Michele Pagani (title: "Proof-nets and cliques: towards the understanding of analytical proofs") and Gabriele Pulcini (title: "Permutative Logic: a geometrical study on Linear Logic proofs"), Rome 28-29 april 2006

- Organizer (with P. Tranquilli) of the workshop "Nets between determinism and non determinism", Rome 24 april 2009.

- Organizer (with R. Maieli e T. Numerico) of the meeting "Logica e geometria della cognizione: incontro in onore dei 60 anni di V.Michele Abrusci/Logique et géométrie de la cognition: rencontre en l'honneur des 60 ans de V. Michele Abrusci", Firenze Villa Finaly, 17 september 2009

- Member of the "Comité de sélection" for the position of Maître de Conférences MCF n. 0199 (chaire CNRS) at the University Paris 13. The committee selected in december 2009 Michele Pagani (old phd student in Philosophy at the University Roma Tre)

- Member of the program committee of the conference "Developments in Implicit Computational complExity (DICE 2010)" (http://perso.ens-lyon.fr/patrick.baillot/DICE2010/), 27-28 march 2010 Paphos (Cyprus)

- Course lecturer at the school on "Game semantics and linear logic" (École Normale Supérieure de Lyon, 8-12 february 2010, organizer: Patrick Baillot)

- Member of the research project "PICS" (Projet International de Coopration

Scientifique) of the Conseil National de la Recherche Scientifique (C.N.R.S.) having as title "Logique Linéaire et applications" (duration: 1/1/2010- 31/12/2012), responsible Patrick Baillot (Ecole Normale Supérieure de Lyon)

- Member of the program committee of the conference "Typed Lambda-Calculus and Applications 2013 (TLCA 2013)" (http://www.mimuw.edu.pl/tlca/), 26-28 june 2013, Eindhoven (Nederland)

- Member of the program committee of the conference "Developments in Implicit Computational complExity (DICE 2016)" (https://lipn.univ-paris13.fr/DICE2016/), 2-3 april 2016, Eindhoven (Nederland)

- Member of the program committee of the school-conference "LL2016 - Linear Logic: interaction, proofs and computation" (https://ll2016.sciencesconf.org/), 7-10 november 2016, Lyon (France)

- Member of the program committee of the conference "Trends in Linear Logic and Applications (TLLA 2017)" (http://lipn.univ-paris13.fr/TLLA17/), 3 September 2017, Oxford, United Kingdom

- Organizer of the second general meeting of the "Groupement de recherche international Logique Linéaire", Roma 23-24 ottobre 2017 (http://linear-logic.org/en/events/general-meeting-2017/)

- Organizer of the conference in honour of the seventieth birthday of Jean-Yves Girard, Roma 25 October 2017 (http://linear-logic.org/en/events/jyg-70/)

- Co-Chair of the program committee of the conference "Linearity and Trends in Linear Logic and Applications (TLLA 2018)" (http://lipn.univ-paris13.fr/TLLALinearity18/), 7-8 July 2018, Oxford, United Kingdom

- Member of the program committee of the conference "Trends in Linear Logic and Applications (TLLA 2019)" (http://lipn.univ-paris13.fr/TLLA19/), 29-30 june 2019, Dortmund, Deutschland

- Organizer of the fourth general meeting of the "International research Network (IRN) Linear Logic" (called before "Groupement de recherche international Logique Linéaire"), Roma 9-11 september 2019 (https://sites.google.com/view/irn-ll-roma2019/home)

- Organizer of the conference in honour of the retirement of Vito Michele Abrusci, Roma 12 september 2019 (https://sites.google.com/view/irn-ll-roma2019/home)

- Chair of the selection committee of the prize "Ada Lettieri 2019" (november 2019)

- Member of the organizing committee of the conference "Linearity and Trends in Linear Logic and Applications (TLLA 2020)" (https://lipn.univ-paris13.fr/TLLA/2020/), 29-30 june 2020, Paris, France, (virtually)

- Member of the organizing committee of the conference "Trends in Linear Logic and Applications (TLLA 2021)" (https://lipn.univ-paris13.fr/TLLA/2021/), 27-28 june 2021, Roma, Italy, (virtually)

- Member of the organizing committee of the thematic month (thematic month-mois thématique) "Logic and Interaction" held in Marseille (France) at the Centre International de Rencontres Mathématiques (CIRM) from january 24 to february 25 2022 (https://conferences.cirm-math.fr/2507.html)

- Member of the scientific committee and of the organizing committee of the research school "Linear Logic winter school" held in Marseille (France) at the Centre International de Rencontres Mathématiques (CIRM) from january 24 to january 28 2022 (https://conferences.cirm-math.fr/2685.html)

- Member of the scientific committee and of the organizing committee of the research school "Logic and Transdisciplinarity" held in Marseille (France) at the Centre International de Rencontres Mathématiques (CIRM) from february 7 to february 11 2022 (https://conferences.cirm-math.fr/2687.html)

- Member of the scientific committee and of the organizing committee of the conference "Linearity and Trends in Linear Logic and Applications 2022" (https://lipn.univ-paris13.fr/LinearityTLLA2022/), 31 july-1 august 2022, Haifa, Israel

- Member of the scientific committee of the conference "XXVII Incontro di Logica" (https://www.ailalogica.it/incontro2022/), organized by the "Associazione Italiana di Logica e sue Applicazioni", 12-15 septembre 2022, Caserta, Italy

- Member of the organizing committee of the conference in honour of Thomas Ehrhard's 60th birthday, Paris 29-30 september 2022 (https://te60.linear-logic.org/program/)

- among the promoters of the serie of meetings "International Workshop on Trends in Linear Logic and Applications" (TLLA) and member of the Steering Committee (https://lipn.univ-paris13.fr/TLLA/)

Local scientific activities:

- Organizer of the roman seminar "Logica Lineare", from October 2000 until june 2008 (http://logica.uniroma3.it/)

- Member of the italian research project "Logica Lineare e oltre" funded by the italian Ministero della Pubblica Istruzione, dell'Università e della Ricerca Scientifica (MURST) (2000-2002)

- Member of the italian research project "Dalla prova alla computazione con la Logica Lineare" funded by the MURST (2002-2004)

- Member of the organizing committee of the conference "Logica Lineare", Uni-

versity Roma Tre, 10-12 february 2003

- Member of the italian research project FOLLIA (Logical foundations of abstract programming languages) funded by the MURST (2005-2006).

- Organizer of the thematic workshop "Geometria e strutture nelle prove e nei programmi" (Roma, 31-31 may 2005), in the framework of the FOLLIA project

- Member of the italian research project "Metodi logici per il trattamento dell'informazione", funded by the MIUR (italian ministry of University and Research), from october 2012 until september 2015

- Member of the committee of the prize "tesi 3+2" of the italian association of Logic ("Associazione Italiana di Logica e sue Applicazioni (AILA)") in the year 2013, for the best master thesis of the year in logic

- Member of the teaching staff of the phd program in "Filosofia e teoria delle scienze umane" of the University Roma Tre from march 2006 until the end of the academic year 2016/17

- Member of the teaching staff of the phd program in "Matematica" of the University Roma Tre from june 2020

- Member of the board of the italian association of Logic (Associazione Italiana di Logica e sue Applicazioni, AILA) 2020-2023

- Promoter and organizer of the meeting "Giornata INDAM 2022", held at the Dipartimento di Matematica e Fisica of Università Roma Tre, May 10 2022 (https://indam.mat.uniroma3.it/giornata22.html)

Editorial boards:

- Member of the program committee of the conference "Developments in Implicit Computational complExity (DICE 2010)" (http://perso.ens-lyon.fr/patrick.baillot/DICE2010/), 27-28 march 2010 Paphos (Cipro), with proceedings in volume 23 of "Electronic Proceedings in Theoretical Computer Science" (http://eptcs.org/content.cgi?DICE2010), editor-in-chief (and chair of the program committee): Patrick Baillot (ENS-Lyon)

- Member of the program committee of the conference "Typed Lambda-Calculus and Applications 2013 (TLCA 2013)" (http://www.mimuw.edu.pl/tlca/), 26-28 june 2013, Eindhoven (Nederland), with proceedings in "Lecture Notes in Computer Science 7941", Springer-Verlag

  `https://link.springer.com/content/pdf/bfm%3A978-3-642-38946-7%2F1.pdf`

  editor-in-chief (and chair of the program committee): Masahito Hasegawa (Kyoto University)

- Guest editor for the journal "Mathematical Structures in Computer Science", special issue having as title "Differential Linear Logic, Nets, and other quantitative approaches to Proof-Theory", invited by Giuseppe Longo, Editor-in-Chief of the journal (in 2010), Volume 28 special Issue 7 august 2018. The online version of the preface is already available on the website of MSCS: https://www.cambridge.org/core/journals/mathematical-structures-in-computer-science/article/preface/C9726D4E83C6DE75FDF7C175F752A47E

- Co-Chair of the program committee of the conference "Linearity and Trends in Linear Logic and Applications (TLLA 2018)" (http://lipn.univ-paris13.fr/TLLALinearity18/), 7-8 july 2018, Oxford, United Kingdom, with proceedings in Volume 292 of "Electronic Proceedings in Theoretical Computer Science" (https://arxiv.org/html/1904.06159)

Leader of research projects, responsible of national or international teaching projects:

- Team leader of the national research project CONCERTO ("Control and Certification of Resources Usage"), funded by the "Ministero dell'Istruzione dell'Università e della Ricerca" MIUR (head of the network: Simona Ronchi della Rocca, University of Torino). The project activities started in october 2008 and ended in september 2010.

- Responsible of the project "Curriculum binazionale di Laurea Magistrale in Logica/Curriculum binational de master en Logique", funded by Université italo-française (http://www.universite-franco-italienne.org/) in the framework of the program "Vinci 2009". The project allows students to obtain a double degree (Master degree in Philosophy or in Mathematics University Roma Tre, Master degree in "Mathématiques Discrètes et Fondements de l'Informatique" Université de la Métiterranée de Marseille). The project has been supported for the two academic years 2010/11 and 2011/12.

- Responsible of the project "Curriculum binazionale di Laurea Magistrale in Logica/Curriculum binational de master en Logique", funded by Université italo-française (http://www.universite-franco-italienne.org/) in the framework of the program "Vinci 2013". The project allows students to obtain a double degree (Master degree in Philosophy or in Mathematics University Roma Tre, Master degree in "Mathématiques Discrètes et Fondements de l'Informatique" Aix-Marseille Université). The project has been supported for the three academic years 2013/14, 2014/15 and 2015/16.

- Italian coordinator, for the period 2015-2018, of the *Groupement de Recherche International (GRDI)* "Logique Linéaire" of the Conseil National de la Recherche Scientifique (C.N.R.S.), funded by the CNRS and the Istituto Nazionale di Alta Matematica (INDAM). The french coordinator is Thomas Ehrhard (CNRS-

Paris 7); and the official partners are the french CNRS the italian INDAM, Université Paris 7, Ecole Normale Supérieure de Lyon and Aix-Marseille Université on the french side, and Università Roma Tre, Alma Mater Università di Bologna and Università degli studi di Torino on the italian side. Informations on this research group can be found on the site

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http://linear-logic.org/en/
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- Italian coordinator, for the period 2019-2022, of the *International Research Network (IRN old GDRI)* "Linear Logic" of the Conseil National de la Recherche Scientifique (C.N.R.S.), funded by the CNRS and the Istituto Nazionale di Alta Matematica (INDAM). The french coordinator is Thomas Ehrhard (CNRS-Paris 7); and the official partners are the french CNRS the italian INDAM, Université Paris 7, Ecole Normale Supérieure de Lyon and Aix-Marseille Université on the french side, and Università Roma Tre, Alma Mater Università di Bologna and Università degli studi di Torino on the italian side. Informations on this research group can be found on the site

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http://linear-logic.org/en/
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- Responsible ("Direttore") of the Research Unit of the Istituto Nazionale di Alta Matematica hosted by the "Dipartimento di Matematica e Fisica" of the University Roma Tre, since march 2019

Talks, seminars, invitations:

- Oxford 8-11 April 1992: at the congress "VIII MFPS-Mathematical Foundations of Programming Semantics", he is coauthor with M. Pedicini of the talk given by G.F. Mascari "Structures for Non-Commutative Linear Logic and Pure Proof Nets"
- Paris 27 may 1994: in the framework of the weekly seminar "Logique, Lambda-calcul et Programmation" of the Paris 7 logic group, he gives a talk having as title "Normalisation forte pour le calcul des sequents classique bicolore et heterostyle"
- Udine (Italy) 20-30 September 1994: attending the "Advanced school on Typed Lambda Calculus and Functional Programming", he gives the talk "Linear Logic and Classical Logic"
- Nancy 29 November 1994: he gives a talk having as title "Une preuve de normalisation forte pour la deduction libre"
- Rome 3 march 1995: invited by G. Mascari, he gives at the Istituto per le Applicazioni del Calcolo of the C.N.R. a seminar having as title "Su alcuni aspetti "costruttivi" della logica classica"
- Marseille 27 June 1995: invited by the Laboratoire de Mathématiques Discretes

de Luminy, he gives a seminar having as title "Remarques sur le comportement calculatoire des preuves en logique classique"

- Tokyo 2 April 1996: at the congress "Linear '96 Tokyo meeting", he gives a talk on his work "Generalized standardization lemma for the additives", published the same year in volume 3 of ENTCS (Electronic Notes of Theoretical Computer Science), special issue for the proceedings of the congress "Linear '96 Tokyo meeting"

- Rome 18 April 1996: invited by M. Fattorosi Barnaba, from the department of mathematics of the University "La Sapienza" of Rome, he gives a seminar having as title "Verso un modello matematico delle dimostrazioni della logica classica"

- Marseille 18 June 1996: invited by IML (Institut de Mathématiques de Luminy), he gives a seminar having as title "Polarisation des preuves classiques et renversement" (joint work with M. Quatrini)

- L'Aquila 22 October 1996: at the congress "Aspetti computazionali in Algebra, Geometria e Logica", he gives a talk (jointly with Marco Pedicini) having as title "Su alcuni aspetti computazionali delle dimostrazioni matematiche"

- Genova 24 October 1996: during the XVIth meeting of Italian mathematical logic he gives a talk (jointly with G. Mascari and M. Pedicini) having as title "Dinamica: Logica e Geometria"

- Siena (Italy) 7 April 1997: at the workshop "Denotational semantics" (project HCM "Typed Lambda Calculus"), he gives a talk having as title "An application of the additives to classical logic"

- Paris 23 may 1997: in the framework of the weekly seminar "Logique, Lambda-calcul et Programmation" of the Paris 7 logic group, he gives a talk having as title "Isomorphismes calculatoires en logique classique"

- Wien (Austria) 28 August 1997: at the congress "5th Kurt Goedel Colloquium KGC97" he gives a talk on his work "Denotational Semantics for Polarized (but non-constrained) LK by means of the additives", published in "Lecture Notes in Computer Science", special issue for the proceedings of the conference "Computational Logic and Proof Theory", Wien (Austria), 25-29 august 1997

- Roma (Italy) 14 october 1997: at the workshop "Logica Lineare a Roma Tre", he gives a talk having as title "On the structure of the additive computations"

- Paris 21 november 1997: in the framework of the weekly seminar "Logique, Lambda-calcul et Programmation" of the Paris 7 logic group, he gives a talk having as title "Sur une caracterisation sémantique de l'équivalence des réseaux"

- Marseille 7 april 1998: invited by the program committee of the congress "Linear Logic 98" (J.-Y. Girard, M. Okada, A. Scedrov), he gives a talk having as

title "On a semantical characterization of the equivalence between proof-nets"

- Rome 1 july 1999: invited by V.M. Abrusci, he gives a seminar having as title "Una versione semantica della connessione nel criterio di correttezza dei proof-net"

- Rome 20 march 2000: invited by V.M. Abrusci, he gives a seminar having as title "Proof-nets, coerenza e esperienze ossessive"

- Paris 25 may 2000: in the framework of the weekly seminar of the new team "Preuves Programmes et Systèmes" of the University of Paris 7, he gives a talk having as title "La question de l'injectivité de la sémantique (dénotationnelle) de la logique linéaire"

- St Dalmas de Tende 12 june 2000: in the framework of the working group on the theme "Les exponentielles : multiplicité, non-uniformité", he gives a talk having as title "uniformité et injectivité de la sémantique des réseaux de LL"

- Paris 23 july 2000: at the "Logic Colloquium LC2000" he gives the talk "Coherent obsessional experiments for Linear Logic proof-nets", the abstract of which is published by "The Bulletin of Symbolic Logic"

- Siena 20 april 2001: invited at the workshop "The geometrical approach to logic", he gives a talk having as title "Looking for canonical objects"

- Bertinoro (Bologna) 22 april 2001: in the framework of the annual meeting of the european TMR project "Linear Logic in Theoretical Computer Science", he gives a talk having as title "An application of the injectivity property to the additives" (joint work with O. Laurent)

- Paris 27 april 2001: invited by the AFIT (Association Française d'Informatique Théorique) as the author of one among the five "thèses distinguées" for the year 2000, he gives a talk having as title "Réseaux, cohérence et expériences obsessionnelles"

- Bologna 24 january 2002: at the annual meeting of the italian research project "Logica Lineare e oltre", he gives a talk having as title "Alla ricerca di una rappresentazione canonica delle dimostrazioni"

- Marseille 15 february 2002: invited by the organizers of the "Logic and Interaction Weeks", he gives a talk having as title "Proof-nets and denotational semantics"

- Roma 18 december 2002: invited by the organizers of the "Young Algebra Seminar" of the Mathematics departement of the Tor Vergata University, he gives a seminar having as title "Sulla struttura logica del calcolo"

- Roma 11 february 2003: at the final meeting of the italian research project "Logica Lineare e oltre", he gives a talk having as title "Proof-nets and experiments"

- Paris 2 june 2003: invited by Patrick Baillot, in the framework of the research project "Vinci" of the french-italian University, he gives a seminar having as title "Logique linéaire et logique classique"

- Marseille 1-13 july 2003: invited by Paul Ruet, in the framework of the project of doctoral school "Logique Mathématique et Informatique Théorique" between the University Roma Tre and the University of Aix-Marseille 2, supported by the french-italian University (in the framework of the "Vinci" program), he gives a little course (6 hours) having as title "Quelques résultats de base en théorie de la complexité"

- Verona 19 december 2003: at the annual meeting of the italian research project "From Proofs to Computation with Linear Logic", he presents the results obtained by the research group during the first year of the project having as common theme "semantics"

- Torino 16 september 2004: at the final meeting of the italian research project "From Proofs to Computation with Linear Logic", he presents the results obtained by the research group having as common theme "semantics"

- Pisa 13 february 2005: invited by the programme committee of the "XXII-esimo incontro AILA (Associazione Italiana di Logica e sue Applicazioni)", he gives a talk having as title "The question of separation in Linear Logic"

- Roma 31 may 2005: during the meeting "Geometria e strutture nelle prove e nei programmi", he introduces the half day dedicated to the theme "Struttura dell'interazione: interpretazioni del lambda-calcolo e della logica lineare, separabilità"

- Freiburg 20-26 july 2005: invited by Markus Junker, in the framework of the Erasmus-Socrates exchange programme between the Universities Roma Tre and Albert-Ludwigs of Freiburg (Germany), he gives various talks introducing Linear Logic to the phd students of the *Abteilung Für Matematische Logik*. The titles of the talks were "Proof-theory and the Curry-Howard correspondence" and "Introduction to Linear Logic"

- Paris 15 november 2005: invited by Olivier Laurent, in the framework of the bilateral research project C.N.R.-C.N.R.S. "Interaction and complexity" ("Interaction et complexité"), he gives a seminar having as title "Cliques obsessionnelles: vers une caractérisation sémantique du temps borné" (joint work with Olivier Laurent)

- Torino 20 january 2006: at the annual meeting of the italian research project "From Proofs to Computation with Linear Logic", he gives a talk having as title "Cliques ossessive: una caratterizzazione semantica del tempo limitato"

- Marseille 17 february 2006: in the framework of the conference "Geometry of Computation 2006 (GEOCAL06)", held in Marseille from january 30 to

march 3 2006 (organizers: Thomas Ehrhard and Laurent Regnier), and precisely during the workshop "Implicit Computational Complexity" (organized by P. Baillot), he gives a talk having as title "Obsessional cliques: a semantic characterization of bounded time complexity" (joint work with Olivier Laurent)

- Roma 28 april 2006: in the framework of the conference "Geometria della logica", held in Rome 28-29 april 2006, he gives a talk having as title "Computing with semantics"

- Seattle (USA) 13 august 2006: at the Twenty First Annual IEEE Symposium on Logic in Computer Science (Seattle, August 12 - 15, 2006) the accepted joint work with O. Laurent having as title "Obsessional cliques: a semantic characterization of bounded time complexity" is presented

- Bologna 13 october 2006: at the final meeting of the italian research project "From Proofs to Computation with Linear Logic", he gives a talk having as title "Linear Logic and the strong normalization property" (joint work with M. Pagani)

- Paris 5 december 2006: invited by Olivier Laurent, in the framework of the bilateral research project C.N.R.-C.N.R.S. "Interaction and complexity" ("Interaction et complexité") 2006-2007, he gives a seminar having as title "Logique linéaire et normalisation forte" (joint work with M. Pagani)

- Paris 29 june 2007: at the workshop "Type theory, proof theory, and rewriting" the joint work with M. Pagani having as title "Strong Normalization property for second order Linear Logic" is presented

- Genova 22 february 2008: invited by the programme committee of the "XXIII-esimo incontro AILA (Associazione Italiana di Logica e sue Applicazioni)", he gives a talk having as title "Geometry of proofs and execution time", where the research team of the Roma Tre site of the research project "Concerto" is presented (coordinator: Simona Ronchi della Rocca, coordinator of the Roma Tre research unit: Lorenzo Tortora de Falco).

- Roma 14 march 2008: invited by Claudio Bernardi (mathematics department university "La Sapienza"), he gives a seminar having as title "La teoria della dimostrazione dopo la corrispondenza Curry-Howard"

- Roma 13 march 2009: invited by the association FormaScienza, the mathematics department of the university "La Sapienza" of Rome and the "Istituto Nazionale di Alta Matematica" (INDAM), he gives with Maria Pia Ellero a so-called "Caffè matematico" having as title "Infinity"

- Paris 11 june 2009: invited by Thomas Ehrhard (laboratoire Preuves Programmes et Systèmes) he gives a seminar having as title "Sémantique relationnelle et temps d'exécution en Logique Linéaire" (joint work with D. De

Carvalho and M. Pagani)

- Lyon, 11 february 2010: invited by Patrick Baillot and Olivier Laurent (Laboratoire de l'Informatique du Parallélisme (LIP) of the École Normale Supérieure de Lyon), in the framework of the french research project Choco (http://choco.pps.jussieu.fr/), he gives a seminar having as title "On the injectivity of relational semantics for MELL" (joint work with Daniel de Carvalho)

- Roma 25 march and 15 aprie 2010: invited by the association FormaScienza, he participates as lecturer to the meeting having as title "Infinity and Paradoxes", organized by the Libraries of Rome in the framework of the "Assaggi di Scienza"

- Pisa, 28 february 2011: invited by Enrico Moriconi and Andrea Cantini, organizers of the meeting "Truth, Proof and Consequence. Perspectives on Logic", he gives a lecture having as title "An interactive approach to separation (in Linear Logic)"

- Lyon, 13 october 2011: invited by Olivier Laurent for a short research staying, he gives a conference at the "Laboratoire de l'Informatique du Parallélisme (LIP)" of the École Normale Supérieure de Lyon having as title "Weak normalization, strong normalization and confluence of Linear Logic proof-nets: the semantic point of view" (joint work with Daniel de Carvalho)

- Roma, 16 march 2013: at the conference "Developments in Implicit Computational Complexity" (DICE 2013), the accepted joint work with D. de Carvalho having as title "A semantic account of strong normalization in Linear Logic" is presented

- Pisa, 15 april 2014: at the meeting "XXV-esimo incontro dell'AILA (Associazione Italiana di Logica e sue Applicazioni)", the joint work with G. Guerrieri having as title "Injectivity of relational semantics with respect to MELL proof-nets and the Taylor expansion" is presented

- Wien, 13 luglio 2014: at the conference "Linearity 2014" (in the framework of the Vienna summer of Logic 2014), the accepted joint work with G. Guerrieri having as title "A new point of view on the Taylor expansion of proof-nets and uniformity" is presented (more informations on the web site of the conference: http://www.easychair.org/smart-program/VSL2014/Linearity-program.html)

- Wien, 13 luglio 2014: at the conference "Termgraph 2014" (in the framework of the Vienna summer of Logic 2014), the accepted joint work with G. Guerrieri and L. Pellissier having as title "Injectivity of Relational Semantics for (Connected) MELL Proof-Nets via Taylor Expansion" is presented (more informations on the web site of the conference: http://www.easychair.org/smart-program/VSL2014/TermGraph-program.html)

- Ischia, 21 june 2015: at the conference "Topology, Algebra, and Categories in

Logic 2015 (TACL 2015)", the accepted joint work with G. Guerrieri and L. Pellissier having as title "Injectivity of Relational Semantics for (Connected) MELL Proof-Nets via Taylor Expansion" is presented (more informations on the web site of the conference: http://www.logica.dmi.unisa.it/tacl/)

- Roma, 21 december 2015: at the workshop "New trends in linear logic proof-nets" (meeting of the "Groupement de recherche international Logique Linéaire") he gives a talk having as title "Some remarks about connectedness, Taylor expansion and injective relational semantics" (more informations on the web site of the conference: http://www.pps.univ-paris-diderot.fr/gdri-ll)

- Bologna, 2 february 2016: at the first general meeting of the "Groupement de recherche international Logique Linéaire", he gives a talk having as title "Proof-NETS and (Intersection) Types" (more informations on the web site of the conference: http://linear-logic.org/en/events/meeting-2016-02-01/)

- Eindhoven (Nederland), 3 april 2016: at the conference "Developments in Implicit Computational complExity (DICE 2016)", the accepted joint work with G. Guerrieri and L. Pellissier having as title "Relational type-checking of connected proof-structures" is presented (more informations on the web site of the conference: https://lipn.univ-paris13.fr/DICE2016/)

- Porto (Portugal), june 2016: at the conference "Formal Structures for Computation and Deduction", the accepted joint work with G. Guerrieri and L. Pellissier having as title "Computing connected proof(-structure)s from their Taylor expansion" is presented and will appear in the proceedings of the conference (more informations on the web site of the conference: http://fscd2016.dcc.fc.up.pt/programme/acceptedPapers/)

- Porto (Portugal), 26 june 2016: at the conference "Eighth Workshop on Intersection Types and Related Systems", the accepted joint work with G. Guerrieri and L. Pellissier having as title "Relational type-checking for MELL proof-structures. Part 1: Multiplicatives" is presented (more informations on the web site of the conference: http://www-kb.is.s.u-tokyo.ac.jp/ITRS2016/)

- Marseille, 15 december 2016: invited by Lionel Vaux (IML and Aix-Marseille Université), he gives a lecture having as title "Quelques remarques sur la définition d'expansion de Taylor d'un réseau de preuve" (based on some joint works with Giulio Guerrieri and Luc Pellissier), in the framework of the regular seminar of the group "Logique de la programmation" of the Institut de Mathématiques de Luminy

- Padova, 25 september 2017: at the meeting "XXVI-esimo incontro dell'AILA (Associazione Italiana di Logica e sue Applicazioni)", the joint work with J. Chouquet, G. Guerrieri, L. Pellissier, L. Vaux having as title "Normalization by evaluation in linear logic" is presented (more informations on the web site

of the conference: https://events.math.unipd.it/aila2017/node/3)

- Roma, 24 october 2017: in the framework of the second general meeting of the "Groupement de recherche international Logique Linéaire", the joint work with J. Chouquet, G. Guerrieri, L. Pellissier, L. Vaux having as title "Normalization by evaluation in MELL proof-nets" is presented (more informations on the web site of the conference: http://linear-logic.org/en/events/general-meeting-2017/talks/chouquet/)

- Roma, 24 october 2017: in the framework of the second general meeting of the "Groupement de recherche international Logique Linéaire", the joint work with G. Guerrieri and L. Pellissier having as title "Coherence, Taylor expansion and box-connected proof-nets" is presented (more informations on the web site of the conference: http://linear-logic.org/en/events/general-meeting-2017/talks/pellissier/)

- Prague, 7 april 2019: at the workshop "Developments in Implicit Computational ComplExity & Foundational & Practical Aspects of Resource Analysis" (DICE-Fopara 2019), the joint work with Lê Thành D?ng Nguyen, Thomas Seiller and Paolo Pistonehaving as title "Finite semantics of polymorphism, complexity and the power of type fixpoints" is presented (more informations on the web site of the conference: https://conf.researchr.org/track/etaps-2019/dice-fopara-2019-papers#program)

- Lyon, 8 april 2019: invited by Olivier Laurent, he gives a seminar at LIP ("Laboratoire de l'Informatique du Parallélisme") of the École Normale Supérieure de Lyon having as title "On some uses of connectedness in Linear Logic"

- Utrecht (Nederland), 5 july 2019: at the conference "26th Workshop on Logic, Language, Information and Computation (WoLLIC 2019)" the accepted joint work with G. Guerrieri and L. Pellissier having as title "Proof-net as graph, Taylor expansion as pullback", is presented and published in the proceedings of the conference (more informations on the web site of the conference: https://wollic2019.sites.uu.nl/)

- Barcelona (España), 16 january 2020: at the conference "28th EACSL Annual Conference on Computer Science Logic (CSL 2020)" the accepted joint work with G. Guerrieri and L. Pellissier having as title "Glueability of resource proof-structures: inverting the Taylor expansion", is presented and published in the proceedings of the conference (more informations on the web site of the conference: https://www.cs.upc.edu/csl2020/)

- Roma, 27 june 2021: at the conference "5th international workshop on Trends in Linear Logic and Applications (TLLA 2021)" the joint work with Giulio Guerrieri, Giulia Manara, Luc Pellissier and Lionel Vaux having as title "Proof-nets as graphs" is presented (https://lipn.univ-paris13.fr/TLLA/2021/)

- Marseille, 26 january 2022: invited by the scientifc committee of the research school "Linear Logic winter school", he gives a talk having as title "MELL proof-nets, part 2: a proof of strong normalization" (https://conferences.cirm-math.fr/2685.html)

- Marseille, 7 february 2022: invited by the scientifc committee of the research school "Logic and Transdisciplinarity", he gives a talk having as title "Scütte's proof of the completeness theorem" (https://conferences.cirm-math.fr/2687.html)

- Marseille, 8 february 2022: invited by the scientifc committee of the research school "Logic and Transdisciplinarity", he gives a talk having as title "The proof of Gödel's incompleteness theorem: part 2" (https://conferences.cirm-math.fr/2687.html)

- Paris, 30 september 2022: iinvited by the scientifc committee of the conference "Workshop in Honour of Thomas Ehrhard's 60th Birthday", he gives a talk having as title "Talking with Thomas" (https://te60.linear-logic.org/)

Dissemination activities, cooperation with schools:

- Ascea (Salerno), 20 september 2019: organizer (with Francesca Gambetti) of "Eleatica per le scuole (edizione 2019)", event in the framework of which he was moderator of the round table held at "Fondazione Alario per Ascea-Velia" and held a seminar for school teachers (https://sites.google.com/view/pensareperparadossi/eleatica-per-le-scuole)

- organizer and promoter, with Francesca Gambetti, of the call for high school students "Il paradosso tra matematica, fisica e filosofia", funded by the "Dipartimento di Matematica e Fisica" of the University Roma Tre and by the "Società Filosofica Italiana (SFI)", edition 2019-20 (https://sites.google.com/view/pensareperparadossi/Ho

- Roma, 10 february 2020: organizer and speaker at the meeting for school teachers and high shool students "Il paradosso in Matematica, Fisica e Filosofia" held at University Roma Tre (https://www.uniroma3.it/articoli/pre-il-paradosso-in-matematica-fisica-e-filosofia-16280/)

- Ascea (Salerno), 27 september 2021: organizer (with Francesca Gambetti) of "Eleatica per le scuole (edizione 2021)", event in the framework of which he was moderator of the round table held at "Fondazione Alario per Ascea-Velia" (http://www.fondazionealario.it/neweleatica/extra/eleatica-2021eleatica-per-le-scuole/)

- organizer and promoter, with Francesca Gambetti, of the call for high school students "Il paradosso tra matematica, fisica e filosofia", funded by the "Dipartimento di Matematica e Fisica" of the University Roma Tre and by the "So-

cietà Filosofica Italiana (SFI)", edition 2021-22 (https://sites.google.com/view/pensareperparadossi/Ho

- Roma, 17 february 2022: organizer and speaker at the meeting for school teachers and high shool students "Il paradosso in Matematica, Fisica e Filosofia" held at University Roma Tre (https://portalestudente.uniroma3.it/en/articoli/il-paradosso-tra-matematica-fisica-e-filosofia-213498/)
- 26 september 2022: he was interviewed in the framework of the event "la notte della ricerca 2022" organized by the "Dipartimento di Matematica e Fisica" of the University Roma Tre (https://nottericerca.uniroma3.it/?p=1319).

Teaching experience:

1. At the Universty Paris X-Nanterre

He has been "Attaché Temporaire d'Enseignement et de Recherche" (A.T.E.R.) at the University Paris X Nanterre from september 1998 until july 2000. He gave lessons in courses of Logic, (general) mathematics, and computer science.

- "Les bases du raisonnement" (Psichology departement):
  It is the course in the framework of which he gave 4 hours of lesson every week during the first term of the academic year 1998/99, 5 hours of lesson during the second term of the same year, and 5 hours of lesson during the first term of the academic year 1999/2000 (the total amount of hours is around 150).
  The aim of the course was to teach students with no scientific background the very basic notions of mathematical logic. More precisely, they were expected to:
    - translate the natural language into formulas of the propositional and predicate calculus
    - establish "semantically" (i.e. by means of the truth tables or of the abstract notion of structure for a language) the correctness of a given reasoning
    - give formal proofs (using the rules of intuitionistic natural deduction and adding the principle of the excluded middle) of a tautology of propositional calculus or of a valid formula of predicate calculus.
- Linear algebra and analysis (Economy departement):
  He gave 4 hours of lesson (every week) of "Mathématiques" to the students of the first year, during the second term of the academic year 1999/2000 (total amount of hours: around 50 hours).
  The content of the course was the basis of linear algebra and of the theory of functions of several variables.

- The programming language TurboPascal (Economy department):
  He gave 8 hours of lesson (every week) of "Initiation à l'Informatique" during the second term of the year 1998/99, and 2 hours of lesson of "Informatique 2" during the first term 1999/2000. He also taught 2 hours and a half of "Informatique" in the first term of the year 1999/2000 and two hours of "Initiation à l'Informatique" in the second term of the same year. The total amount of hours is around 200.
  The content of all these courses was the study (at different levels) of the programming language TurboPascal.

2. At the University Roma Tre

He was researcher and is now associate professor at the University Roma Tre. He teaches logic (and theoretical computer science).

- Course "Laboratorio di Informatica" (Faculty of Science), academic year 2000/2001:
  It was a course of the first year. He gave around 50 hours of lesson, teaching the programming language (Turbo)Pascal.

- "Informatica 1" (Faculty of Science), academic year 2000/2001:
  He worked jointly with Marco Liverani, during the second term of the academic year 2000/2001, to teach the programming language C to the students of the first year in Mathematics (total amount of hours: around 50).

- "Logica" (logic), "Logica matematica" (mathematical logic), "teoria degli insiemi" (set theory), Faculties of Philosophy and of Science, academic years 2000/2001, 2001/2002, 2002/2003:
  He gave several lessons in the framework of these courses (held by Michele Abrusci), for around 40 hours. In these lessons, he presented some basic results of mathematical logic (like the completeness theorem, the cut-elimination theorem,...) and introduced the students to the λ-calculus.

- Phd course "Introduzione alla Logica Lineare" (Introduction to Linear Logic), PHD program in Philosophy, academic year 2002/2003:
  He was, together with Michele Abrusci, the organizer of this 20 hours course, held in Roma between october and december 2002. This course was rather successfull, and several students from other italian Phd programs followed the lessons (like 4 students from the Phd in "Mathematical Logic and Theoretical Computer Science" of the University of Siena).
  He gave three talks (6 hours) on proof-nets and denotational semantics.

- Course "Teoria dell'Informazione" (Faculty of Science), academic years 2001/2002, 2002/2003 and 2003/2004:
  It is a master course for students in Mathematics. He held it during the second term of the academic years 2001/2002 and 2003/2004 (around 60 hours

per year). The aim of the course was to introduce the students to complexity theory.

In the first part, having as title "computability and complexity", the main classical results in computability theory were proven (the equality between the class of Turing-computable functions and the one of recursive functions, Kleene's normal form theorem, the undecidability of the halting problem, the enumeration theorem, Rice's theorem, the fixed point theorem). Having complexity theory in mind, the Kalmar-elementary functions were used to encode Turing machines (instead of primitive recursive functions): this immediately yields (thanks to Kleene's theorem) the Kalmar axiomatic characterization of the class of functions computable in elementary time by a deterministic Turing machine.

In the second part, having as title "the complexity classes", non-deterministic Turing machines were introduced, so as the time and space complexity classes (deterministic and non-deterministic). The (few) known results on the inclusions of complexity classes were then proven: the (time and space) hierarchy theorem, Savitch's theorem, etc... The notion of completeness of a problem with respect to a certain complexity class was then introduced. Finally, the NP-completeness of the satisfiability problem of a propositional formula (SAT) was proven.

- Course "Logica intuizionista e Logica Lineare" (Mathematical Logic) academic year 2003/04:
  This is a course for both undergraduate and master students in mathematical logic (around 45 hours).
  Some complements to the Logic course (for undergraduate students) were presented, and precisely: the complete proof of the cut-elimination theorem, some applications of the compactness theorem (elements of model theory: extensions, elementary extensions, Löwenheim-Skolem), some basic notion on recursive functions, Peano arithmetic and Gödel's incompleteness theorems.

- Course "Logica" (Logic) academic years 2004/05, 2005/06, 2006/07, 2007/08, 2008/09, 2009/10, 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19, 2019/20, 2020/21, 2021/22, 2022/23:
  This is a course for both undergraduate students in philosophy and undergraduate students in mathematics, held some years alone and some years with Michele Abrusci (around 80 hours). The course presents the main basic results of first order classical logic: compactness theorem, completeness theorem, cut-elimination theorem, computability theory and Gödel's incompleteness theorems. Several applications of these results are also discussed. The approach is rather different from the standard one, following a proof-theoretical route, and it is strongly inspired by recent advances in logic, such as linear logic. This course and the course "Teoria assiomatica degli insiemi" were the main inspi-

rations for the book (in two volumes) "Logica", published by Springer-Verlag.

- Course "Logica Matematica" (Mathematical Logic) academic years 2005/06, 2011/12, 2015/16:
  It is a master course in mathematical logic (around 40 hours), and more precisely on the computational approach to proof-theory. Starting from Gentzen's cut-elimination theorem, the (typed) λ-calculus is introduced and the Curry-Howard correspondence is presented. Girard's system F is defined and proven to enjoy the strong normalization property. This leads to the "programming with proofs" method introduced by Krivine and Parigot and to the system AF_2 of second order arithmetic. At the very end of the course a quick presentation of linear logic proof-nets is given.

- Course "Teoria assiomatica degli insiemi" (Set theory) academic years 2006/07, 2007/08, 2008/09, 2009/10, 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19, 2019/20, 2020/21, 2021/22, 2022/23:
  The course (around 40 hours) gives the essential elements of Zermelo-Fraenkel axiomatic set theory. The main part of the course is on Von Neumann ordinals. This course and the course "Logica" were the main inspirations for the book (in two volumes) "Logica", published by Springer-Verlag.

- Course "Logica e Filosofia" (Logic and Philosophy) academic year 2007/08:
  The purpose of the course (around 30 hours) was to give an idea of the history of logic, starting from the greeks until the main theorems of the 20th century, through the concept of proof and its evolution, also relating it to the birth and evolution of computer science.
  A peculiarity of the course was the participation of other colleagues: Riccardo Chiaradonna (Philosophy department, university Roma Tre) and Teresa Numerico (University of Salerno).

3. Other courses

- "Quelques résultats de base en théorie de la complexité" (University Aix-Marseille 2, 1-13 july 2003):
  He gave a short Phd course (6 hours) in the framework of the project of doctoral school "Logique Mathématique et Informatique Théorique" between the University Roma Tre and the University of Aix-Marseille 2, supported by the french-italian University ("Vinci" program).
  Some characterizations of Kalmar elementary functions were presented, the complexity classes were defined, and some basic results in complexity theory were proven: the (time and space) hierarchy theorem, Savitch's theorem, the Cook-Levin theorem.

- "Game semantics and linear logic" (École Normale Supérieure de Lyon, 8-12 february 2010, organizer Patrick Baillot):

He was among the three lecturers of the 24 hours course having as title "Game semantics and linear logic", and lectured 6 hours on linear logic proof-nets, correctness criterions, strong normalization and confluence, relational and coherent denotational semantics . The course was attended by master students so as by phd students coming from ENS but also from other european and asian universities.

4. Master/undergraduate students, supervision of thesis

He was supervisor (or co-supervisor) of several thesis:

- Claudia Barcaglioni: "Le dimostrazioni logiche come costruzioni: spazi coerenti ed esperienze" (Mathematics, University Roma Tre, february 2001)

- Laura Di Renzo: "Le dimostrazioni logiche come grafi: i proof-net" (Mathematics, University Roma Tre, february 2001)

- Damiano Mazza: "Logica Lineare e Complessità Computazionale" (Engineering, University Roma Tre, december 2002)

- Silvia Lanaro: "Logica Lineare e tempo elementare" (Mathematics, University Roma Tre, february 2003)

- Antonio Veredice: "Teoria dei domini e Logica Lineare" (University La Sapienza of Rome, november 2003).

- Francesca Cavaliere: "Il teorema di Böhm nel λ-calcolo" (Mathematics, University Roma Tre, february 2005)

- Pasquale Borriello: "Polinimialità del test di primalità" (Philosophy, University Roma Tre, june 2005)

- Laura Fontanella: "L'indipendenza dell'assioma di scelta dalla teoria degli insiemi di Zermelo-Fraenkel" (Philosophy, University Roma Tre, november 2006)

- Giulio Guerrieri: "Il concetto di infinito nella teoria assiomatica degli insiemi" (Philosophy, University Roma Tre, november 2006)

- Chiara Sorgentone: "Il teorema di eliminazione del taglio" (Mathematics, University La Sapienza of Rome, october 2008)

- Mirella Pedrini: "La logica di Alice -L'insegnamento della logica alle elementari" (Philosophy, University Roma Tre, december 2008)

- Manuela Maggi: "Il concetto di infinito nella bi-logica di Matte Blanco" (Philosophy, University Roma Tre, may 2009)

- Eugenia Sironi: "Sulla nozione matematica di calcolabilità" (Mathematics, University La Sapienza, july 2009)

- Giulio Guerrieri: "Dalle reti di prova della logica lineare alle reti differenziali"

(Philosophy, University Roma Tre, july 2009)

- Marco Butafoco: "Punti Fissi nel λ-calcolo" (Mathematics, University Roma Tre, july 2010)

- Gianluca Calcagni "Proof-nets in a variant of Intuitionistic Logic" (Mathematics, University Roma Tre, may 2011)

- Gabriele Muciaccia "Computing the free commutative comonoid" (co-supervisor with Lionel Vaux from Université de la Méditerranée, in the framework of the project "Curriculum binazionale di Laurea Magistrale in Logica", both of the master thesis in "Matematica" at Roma Tre and of the master thesis in "Mathématiques et Applications de Marseille" at Université de la Méditerranée), february 2012

- Eugenia Sironi "From Linear Logic to Ludis: a zoom on record's representation" (co-supervisor with Myriam Quatrini from Université d'Aix-Marseille, in the framework of the project "Curriculum binazionale di Laurea Magistrale in Logica", both of the master thesis in "Matematica" at Roma Tre and of the master thesis in "Mathématiques et Applications de Marseille" at Université d'Aix-Marseille), october 2012

- Matteo Acclavio "Undecidability of the word problem for groups: the point of view of rewriting theory" (co-supervisor with Yves Lafont from Université d'Aix-Marseille, in the framework of the project "Curriculum binazionale di Laurea Magistrale in Logica", both of the master thesis in "Matematica" at Roma Tre and of the master thesis in "Mathématiques et Applications de Marseille" at Université d'Aix-Marseille), february 2013

- Sara Tassone "Interactive content of proofs in classical logic" (co-supervisor with Emmanuel Beffara from Université d'Aix-Marseille, in the framework of the project "Curriculum binazionale di Laurea Magistrale in Logica", both of the master thesis in "Matematica" at Roma Tre and of the master thesis in "Mathématiques et Applications de Marseille" at Université d'Aix-Marseille), october 2013

- Samantha Marsili "Lingua dei segni ed iconicità nella didattica della Matematica", (Philosophy, University Roma Tre, november 2013), co-supervisors: Virginia Volterra, Alessio Di Renzo)

- Giandomenico Laviola "Complessità computazionale e definibilità logica" (Philosophy, University Roma Tre, march 2014), co-supervisor: Lorenzo Carlucci

- Davide Barbarossa: "Il sistema LK per il calcolo dei sequenti" (Mathematics, University La Sapienza, october 2016)

- Silvia Massullo "La proprietà di terminazione nel lambda-calcolo e nelle reti di prova" (Mathematics, University Roma Tre, march 2017)

- Federico Olimpieri, "Normalization and Taylor expansion of Lambda-terms" (co-supervisor with Lionel Vaux from Université d'Aix-Marseille, in the framework of the project "Curriculum binazionale di Laurea Magistrale in Logica", both of the master thesis in "Scienze Filosofiche" at Roma Tre and of the master thesis in "Mathématiques et Applications de Marseille" at Université d'Aix-Marseille), march 2018

- Samantha Marsili "Percezione motorio-spaziale dei numeri: un confronto tra bambini udenti e sordi" (master thesis in Philosophy, University Roma Tre, july 2018), co-supervisor: Benedetto Scoppola

- Giacomo Ferrara "Injective interpretation and Taylor expansion of Linear Logic Proof-nets" (master thesis in Mathematics, University Roma Tre, october 2018)

- Davide Barbarossa "On the computational content of proofs" (co-supervisor with Laurent Regnier from Université d'Aix-Marseille, in the framework of the project "Curriculum binazionale di Laurea Magistrale in Logica", both of the master thesis in "Matematica" at Roma Tre and of the master thesis in "Mathématiques et Applications de Marseille" at Université d'Aix-Marseille), march 2019

- Fabio Massaioli "Uno studio della normalizzazione in logica classica" (master thesis in Philosophy, University Roma Tre, july 2020)

- Raffaele Di Donna "Algebre di Boole e teorema di rappresentazione di Stone" (Mathematics undergraduate, University Roma Tre, july 2020)

- Luigi Bernardi "From Game Semantics to an educational approach to proving" (co-supervisor with Emanuel Beffara from Aix-Marseille Université, in the framework of the project "Curriculum binazionale di Laurea Magistrale in Logica", both of the master thesis in "Matematica" at Roma Tre and of the master thesis in "Mathématiques et Applications de Marseille" at Aix-Marseille Université), october 2020

- Adrien Ragot "Correctness as good interactive behaviour" (co-supervisor with Myriam Quatrini from Aix-Marseille Université, in the framework of the project "Curriculum binazionale di Laurea Magistrale in Logica", both of the master thesis in "Matematica" at Roma Tre and of the master thesis in "Mathématiques et Applications de Marseille" at Aix-Marseille Université), october 2020

- Edoardo Rivetti "Taylor expansion of proof-nets" (co-supervisor with Lionel Vaux from Aix-Marseille Université, in the framework of the project "Curriculum binazionale di Laurea Magistrale in Logica", both of the master thesis in "Matematica" at Roma Tre and of the master thesis in "Mathématiques et Applications de Marseille" at Aix-Marseille Université), november 2020

- Giulia Manara "Towards parallel computation for multiplicative exponential

proof-nets" (co-supervisor with Lionel Vaux from Aix-Marseille Université, in the framework of the project "Curriculum binazionale di Laurea Magistrale in Logica", both of the master thesis in "Matematica" at Roma Tre and of the master thesis in "Mathématiques et Applications de Marseille" at Aix-Marseille Université), march 2022

- Raffaele Di Donna "Injectivity in Linear Logic" (co-supervisor with Lionel Vaux from Aix-Marseille Université, in the framework of the project "Curriculum binazionale di Laurea Magistrale in Logica", both of the master thesis in "Matematica" at Roma Tre and of the master thesis in "Mathématiques et Applications de Marseille" at Aix-Marseille Université), october 2022

5. Mémoire de D.E.A., foreign pre-doctoral students

- He has been supervisor of the "mémoire de D.E.A. (Diplôme d'Etudes Approfondies) en Mathématiques discrètes et Fondements de l'Informatique" of Paolo Di Giamberardino, having as title "Proof-nets and semantics: coherence and acyclicity" and defended in Marseille (France) in June 2004. The "mémoire de D.E.A." is the french analogue of the master thesis.

- stage de formation École Normale Supérieure de Cachan: he was the supervisor of Luc Pellissier (from École Normale Supérieure de Cachan), who prepared his (first year) master thesis having as title "Réseaux de preuve de la logique linéaire et réseaux différentiels". Luc Pellissier has worked for a period of 4 months (in 2012, from april 16 until august 17) in Roma, under the supervision of Lorenzo Tortora de Falco.

- stage de formation École Centrale de Marseille: he was the supervisor of Jean-Baptiste Vienney (from École Centrale de Marseille), who prepared his master thesis having as title 'Preuves équivalentes en Logique Linéaire Multiplicative Intuitionniste sans unités". Jean-Baptiste Vienney has worked for a period of 3 months (in 2020, from march 2 until may 29) in Roma, under the supervision of Lorenzo Tortora de Falco.

6. Phd Thesis, post-doc

- Member of the Ph.D dissertation committee of Michele Pagani (joint phd thesis: Philosophy Università Roma Tre-Mathematics Université Aix-Marseille II) defended at the University Roma Tre, 2006 april 28 (title: "Proof-nets and cliques: towards the understanding of analytical proofs"), committee: V.M. Abrusci (Università Roma Tre), T. Ehrhard (IML-Marseille), M. Hyland (University of Cambridge), P.-L. Curien (CNRS-Université Paris 7), L. Tortora de Falco (Università Roma Tre).

- Member of the Ph.D dissertation committee of Damiano Mazza (joint phd

thesis: Mathematics Université Aix-Marseille II-Philosophy Università Roma Tre) defended at the Institut de Mathématiques de Luminy 2006 december 2 (title: "Interaction nets: Semantics and Concurrent Extensions"), committee: V.M. Abrusci (Università Roma Tre), J.-Y. Girard (CNRS-IML Marseille), Ian Mackie (King's college London), Laurent Regnier (Université Aix-Marseille II), L. Tortora de Falco (Università Roma Tre).

- Referee of the Ph.D dissertation (and member of the Ph.D dissertation committee) of Daniel De Carvalho (Université Aix-Marseille II), defended in Marseille 2007 september 4. Committee: P. Baillot (CNRS-Université Paris 13), P.-L. Curien (CNRS-Université Paris 7), T. Ehrhard (IML-Marseille), M. Hyland (University of Cambridge), François Lamarche (INRIA-Lorraine), K. Terui (National Institute of Informatics, Tokyo), L. Tortora de Falco (Università Roma Tre).

- Supervisor of the joint Ph.D thesis of Paolo Tranquilli, (Mathematics Università Roma Tre, Computer Science Université Paris 7), having as title "Nets between determinism and non determinism", defended in Rome 2009 april 23. Committee: Antonio Bucciarelli (Co-supervisor Paris 7), Martin Hyland (University of Cambridge), Laurent Regnier (IML-Marseille), Edoardo Sernesi (Roma Tre), Lorenzo Tortora de Falco (supervisor Roma Tre). The thesis benefited from a grant of the "Università italo-francese" in the framework of the "Vinci" program 2007.

- Responsible of the post-doc research of Daniel de Carvalho, in the framework of the research project CONCERTO ("Controllo e Certificazione dell'uso delle risorse"), February 2009-January 2010.

- Member of the Ph.D dissertation committee in Mathematics of Marco Caminati (Dipartimento di Matematica, University "La Sapienza" of Roma) having as title "A simplified framework for first order languages and its formalization in Mizar", defended in Roma 2012, january 20. Committee: Claudio Bernardi (University "La Sapienza" Roma), Carlo Toffalori (University of Camerino), Lorenzo Tortora de Falco (University Roma Tre).

- Member of the Ph.D dissertation committee in "Logica Matematica, Informatica e Bioinformatica" of Silvia Vecchiato (Dipartimento di Scienze Matematiche e Informatiche R. Magari, University of Siena) having as title "Semantics of CBN Dual Calculus Proofs into Control Categories", defended in Siena 2012, october 26. Committee: Andrea Asperti (University of Bologna), Lorenzo Tortora de Falco (University Roma Tre), Aldo Ursini (University of Siena).

- Supervisor of the joint Ph.D thesis of Giulio Guerrieri, (Philosophy Università Roma Tre, Computer Science Université Paris 7), having as title "Differential nets, experiments and reduction", defended in Roma 2013, june. Committee: Thomas Ehrhard (co-supervisor, CNRS-Paris 7), Vito Michele Abrusci (Roma

Tre), Damiano Mazza (CNRS-Paris 13), Lorenzo Tortora de Falco (Roma Tre); referee: Marcelo Fiore (University of Cambridge), Laurent Regnier (Université Aix-Marseille).

- Supervisor of the joint Ph.D thesis of Andrei Dorman, (Philosophy Università Roma Tre, Computer Science Université Paris 13), having as title "Concurrency in Interaction Nets and Graph Rewriting", defended in Rome june 2013. Committee: Damiano Mazza (CNRS-Paris 13, co-supervisor), Stefano Guerrini (Université Paris 13, co-supervisor), Fabio Gadducci (Università di Pisa), Cosimo Laneve (Università di Bologna), Daniel Hirschkoff (Ecole Normale Supérieure Lyon), Lorenzo Tortora de Falco (Roma Tre); referee: Catuscia Palamidessi (Ecole Polytechnique, Paris), Maribel Fernandez (King's College, London).

- Referee ("rapporteur") of the Ph.D dissertation (and member of the Ph.D dissertation committee) of the Ph.D thesis of Alexis Bernadet (Ecole Polytechnique) having as title "Non-idempotent intersection types to refine strong normalisation with quantitative information", defended in Palaiseau (Paris, France) 2014, october. Committee: M. Dezani-Ciancaglini (Università di Torino), Delia Kesner (Université Paris 7), Stphane Graham-Lengrand (Ecole Polytechnique), S. Ronchi della Rocca (Università di Torino), L. Tortora de Falco (Università Roma Tre), B. Werner (Ecole Polytechnique).

- Referee ("rapporteur") of the Ph.D dissertation (and member of the Ph.D dissertation committee) of the Ph.D thesis of Jean-Baptiste Midez (Université d'Aix-Marseille) having as title "Une étude combinatoire du λ-calcul avec ressources uniforme", defended in Marseille in 2014, december. Committee: Thomas Ehrhard (CNRS-Université Paris-Diderot), Daniel Hirschkoff (Ecole Normale Supérieure de Lyon), Michele Pagani (Université Paris-Diderot), Laurent Regnier (Université d'Aix-Marseille), Lorenzo Tortora de Falco (Università Roma Tre), Lionel Vaux (Université d'Aix-Marseille).

- Member of the Ph.D dissertation committee in Mathematics of Matteo Acclavio (Aix-Marseille Université) having as title "String diagram rewriting: applications in category and proof theory", defended in Marseille in 2016, December 14. Committee: Vito Michele Abrusci (Università Roma Tre), Pierre-Louis Curien (Université Paris 7), Willem Heijltjes (University of Bath), Yves Lafont (Aix-Marseille Université), Samuel Mimram (École Polythecnique), Miriam Quatrini (Aix-Marseille Université), Luigi Santocanale (Aix-Marseille Université), Lorenzo Tortora de Falco (Università Roma Tre).

- Referee ("rapporteur") of the Ph.D dissertation (and member of the Ph.D dissertation committee) of the Ph.D thesis of Yann Hamdaoui (Université Paris-Diderot) having as title "Concurrence, Références et Logique Linéaire", defended in Paris in 2018, September 25. Committee: Thomas Ehrhard (CNRS-

Université Paris-Diderot), Claudia Faggian (CNRS-Université Paris-Diderot), Ian Mackie (CNRS-École Poytechnique), Laurent Regnier (Université d'Aix-Marseille), Christine Tasson (Université Paris-Diderot), Lorenzo Tortora de Falco (Università Roma Tre), Benoît Valiron (Université Paris Sud), Daniele Varacca (Université Paris-Est Créteil).

- Member of the Ph.D dissertation committee in Mathematics of Jules Chouquet (Université Paris-Diderot) having as title "Une géométrie du calcul", defended in Paris in 2019, December 6. Committee: Carole Delporte (Université Paris-Diderot), Thomas Ehrhard (CNRS-Université Paris-Diderot), Damiano Mazza (CNRS-Université Paris 13), Samuel Mimram (École Polytechnique), Laurent Regnier (Aix-Marseille Université), Christine Tasson (Université Paris-Diderot), Lorenzo Tortora de Falco (Università Roma Tre), Lionel Vaux Auclair (Aix-Marseille Université).

- Member of the Ph.D dissertation committee in Computer Science of Gianluca Curzi (joint PhD thesis Università degli studi di Torino-Université de Paris) having as title "Non-Laziness in Implicit Computational Complexity and Probabilistic λ-calculus", defended in Torino in 2020, June 12. Committee: Patrick Baillot (CNRS-École Normale Supérieure de Lyon), Ugo Dal Lago (Università di Bologna), Claudia Faggian (CNRS-Université de Paris), Alessio Guglielmi (University of Bath), Michele Pagani (Co-supervisor, Université de Paris), Luca Roversi (Co-supervisor, Università degli Studi di Torino), Lorenzo Tortora de Falco (Università Roma Tre).

- Supervisor of the joint Ph.D thesis (Mathematics Università Roma Tre, Mathematics Aix-Marseille Universit) of Federico Olimpieri having as title "Intersection Types and Resource Calculi in the Denotational Semantics of λ-calculus", defended in Marseille in 2020, November 27. Committee: Marcelo Fiore (University of Cambridge), Ugo Dal Lago (Università di Bologna), Giuseppe Rosolini (Università di Genova), Laurent Regnier (co-supervbisor Aix-Marseille Université), Christine Tasson (Université Paris-Diderot), Lorenzo Tortora de Falco (co-supervisor Università Roma Tre), Lionel Vaux Auclair (co-supervisor Aix-Marseille Université); referee: Marcelo Fiore (University of Cambridge), Paul-André Melliès (CNRS-Université de Paris).

- Supervisor of the joint Ph.D thesis (Mathematics Università Roma Tre, Computer Science Université Sorbonne Paris Nord) of Davide Barbarossa having as title "Towards a resource based approximation theory of programs", defended in Paris in 2021, December 10. Committee: Stefano Guerrini (Université Sorbonne Paris Nord), Giulio Manzonetto (Université Sorbonne Paris Nord, co-supervisor), Simone Martini (Università di Bologna), Simona Ronchi della Rocca (Università di Torino), Lorenzo Tortora de Falco (Roma Tre, co-supervisor), Femke Van Raamsdonk (Vrije Universiteit Amsterdam); referee:

Guy McCusker (University of Bath), Olivier Laurent (CNRS-École Normale Supérieure de Lyon).

- Supervisor of the ongoing PhD thesis of Luigi Bernardi (joint PhD thesis Aix-Marseille Université-Università Roma Tre, supervisors in Aix-Marseille: Emanuel Beffara and Myriam Quatrini)

- Supervisor of the ongoing PhD thesis of Antonio Veredice (Università La Sapienza, co-supervisor: Claudio Bernardi)

- Supervisor of the ongoing PhD thesis of Giulia Manara (joint PhD thesis Université Paris Cité-Università Roma Tre, supervisor in Université Paris Cité: Thomas Ehrhard)

7. Book

Together with M. Abrusci, based on the courses given in the past 10 years, he has written a book (in italian) in two volumes having as title "Logica", containing all the basic results of modern logic. The first volume ("Dimostrazioni e modelli al primo ordine") has been published in october 2014. For the Zentralblatt review, see

`https://zbmath.org/?q=an:1305.03001`

and for the Mathreviews, see

`https://mathscinet.ams.org/mathscinet/pdf/3495882.pdf`

The second volume ("Incompletezza, teoria assiomatica degli insiemi") has been published in december 2018 (ISBN 978-88-470-3967-4). For the Mathreviews, see

`https://mathscinet.ams.org/mathscinet/pdf/3967070.pdf`