

Damiano.Mazza@lipn.univ-paris13.fr  
<http://lipn.univ-paris13.fr/~mazza>  
+33 1 49 40 40 67

CNRS, Laboratoire d'Informatique de Paris Nord  
Université Paris 13, Sorbonne Paris Cité  
99, avenue Jean-Baptiste Clément  
94130 Villetaneuse  
France

## Education

- 2017:** **Habilitation à diriger des recherches**, Université Paris 13.  
**2006:** **Ph.D. in Mathematics**, Université Aix-Marseille 2, advised by Laurent Regnier  
joint with  
**Ph.D. in Philosophy**, Université Roma Tre, co-advised by V. Michele Abrusci.  
**2003:** **DEA (M.S.) in Discrete Math and TCS**, Université Aix-Marseille 2.  
**2002:** **Laurea (B.S./M.S.) in Computer Engineering**, Université Roma Tre.

I speak Italian (native), English (C2/4+), French (C2/4+), Spanish (B1/1+).  
CEFR/ILR proficiency levels (in parentheses) are approximate, self-assessed.

## Academic Positions

- 2008–present:** *chargé de recherche* CNRS (permanent researcher), LIPN, Université Paris 13.  
**2007–2008:** post-doctoral fellow, PPS, Université Paris 7.  
**2006–2007:** post-doctoral fellow, LIPN, Université Paris 13.  
**2003–2006:** *moniteur* (TA), Dep. of Math and CS, Université Aix-Marseille 2.

## Awards and Fellowships

- *Prix de thèse de l'Université de la Méditerranée*, dissertation award, 2007.
- Post-doctoral Fellowship of the *Fondation Sciences Mathématiques de Paris*, 2007-2008.
- Ph.D. Scholarship of the French Ministry of Higher Education and Research, 2003-2006.

## Grants

	Subject	Agency	Funding
<b>as PI:</b>			
<b>2014–2018:</b>	Expanding Logical Ideas for Complexity Analysis (ELICA)	ANR	400k€
<b>2009–2010:</b>	Complexity and Concurrency through Differential Linear Logic (COLLODI)	Digiteo	100k€
<b>as Cowriter:</b>			
<b>2010–2015:</b>	Logic and Geometry of Interaction (LOGOI)	ANR	400k€
<b>2010–2013:</b>	Parallel and Distributed Analysis (PANDA)	ANR	560k€

NB: ANR (*Agence Nationale de la Recherche*) is the French national research funding institution; Digiteo is a computer-science research funding agency for the Paris region (Ile-de-France).

I was also partially involved in several other grants; see <http://lipn.univ-paris13.fr/~mazza/?page=res> for the full list.

## Publications

---

### Journal Articles

1. with Luc Pellissier and Pierre Vial, Polyadic Approximations, Fibrations and Intersection Types. *Proceedings of the ACM on Programming Languages*, 2(POPL:6), 2018.
2. The True Concurrency of Differential Interaction Nets. *Mathematical Structures in Computer Science*, FirstView:1–29, doi:10.1017/S0960129516000402, 2016.
3. Infinitary Affine Proofs. *Mathematical Structures in Computer Science*, FirstView:1–22, doi:10.1017/S0960129515000298, 2015.
4. with Pierre Boudes and Lorenzo Tortora de Falco, An Abstract Approach to Stratification in Linear Logic. *Information and Computation*, 241:32-61, 2015.
5. with Patrick Baillot, Linear Logic by Levels and Bounded Time Complexity. *Theoretical Computer Science*, 411(2):470-503, 2010.
6. Observational Equivalence and Full Abstraction in the Symmetric Interaction Combinators. *Logical Methods in Computer Science*, 5(4:6), 2009.
7. A Denotational Semantics for the Symmetric Interaction Combinators. *Mathematical Structures in Computer Science*, 17(3):527-562, 2007.
8. Observational Equivalence for the Interaction Combinators and Internal Separation. *Electronic Notes in Theoretical Computer Science*, 176(1):113-137, 2007.
9. Linear Logic and Polynomial Time. *Mathematical Structures in Computer Science*, 16(6):947-988, 2006.

NB: In February 2012, I signed the Cost of Knowledge boycott against Elsevier. As a consequence, from then onward I do not referee or do any editorial work for Elsevier, nor submit papers to its journals, unless this causes inconveniences to my coauthors. Examples of well-known Elsevier journals in my research field are *Theoretical Computer Science*, *Information and Computation* and the *Annals of Pure and Applied Logic*.

### Conference Papers

1. Church Meets Cook and Levin. In *Proceedings of LICS*, ACM, 2016.
2. with Beniamino Accattoli and Pablo Barenbaum, A Strong Distillery. In *Proceedings of APLAS*, LNCS 9458, pp. 1–20, 2015.
3. with Luc Pellissier, A Functorial Bridge between the Infinitary Affine Lambda-Calculus and Linear Logic. In *Proceedings of ICTAC*, LNCS 9399, pp. 140–161, 2015.
4. Simple Parsimonious Types and Logarithmic Space. In *Proceedings of CSL*, LIPIcs 41, pp. 24–40, 2015.
5. with Kazushige Terui, Parsimonious Types and Non-uniform Computation. In *Proceedings of ICALP, Part II*, LNCS 9135, pp. 350-361, 2015.
6. with Beniamino Accattoli and Pablo Barenbaum, Distilling Abstract Machines. In *Proceedings of ICFP*, ACM, pp. 363-376, 2014.
7. Non-Uniform Polytime Computation in the Infinitary Affine Lambda-Calculus. In *Proceedings of ICALP, Part II*, LNCS 8573, pp. 305-317, 2014.
8. with Aloïs Brunel, Marco Gaboardi and Steve Zdancewic, A Core Quantitative Coeffect Calculus. In *Proceedings of ESOP*, LNCS 8410, pp. 351-370, 2014.

9. with Andrei Dorman, A Hierarchy of Expressiveness in Concurrent Interaction Nets. In *Proceedings of CONCUR*, LNCS 8052, pp. 197-211, 2013.
10. Non-Linearity as the Metric Completion of Linearity. In *Proceedings of TLCA*, LNCS 7941, pp. 3-14, 2013. Invited paper (not refereed).
11. An Infinitary Affine Lambda-Calculus Isomorphic to the Full Lambda-Calculus. In *Proceedings of LICS*, IEEE Computer Society, pp. 471-480, 2012.
12. with Neil J. Ross, Full Abstraction for Set-Based Models of the Symmetric Interaction Combinators. In *Proceedings of FOSSACS*, LNCS 7213, pp. 316-330, 2012.
13. with Michele Pagani, The Separation Theorem for Differential Interaction Nets. In *Proceedings of LPAR*, LNAI 4790, pp. 393-407, 2007.
14. Edifices and Full Abstraction for the Symmetric Interaction Combinators. In *Proceedings of TLCA*, LNCS 4583, pp. 305-320, 2007.
15. Multiport Interaction Nets and Concurrency. In *Proceedings of CONCUR*, LNCS 3653, pp. 21-35, 2005.

---

## Talks

### Invited Talks at International Conferences

- Non-Linearity as the Metric Completion of Linearity, TLCA, Eindhoven, Jun 28, 2013.

### Invited Talks at International Workshops

- LCC (International Workshop on Logic and Computational Complexity, satellite of LICS), Reykjavik, Jun 19, 2017.
- On Infinitary Affine Lambda-Calculi, HOR/WIR (joint workshop on Higher Order Rewriting and Workshop on Infinitary Rewriting, satellite of RTA-TLCA), Vienna, Jul 12, 2014.
- Non-Uniform Polytime Computation in the Infinitary Affine Lambda-Calculus, DICE (Developments in Implicit Computational Complexity, satellite of ETAPS), Grenoble, Apr 6, 2014;

### Other Invited Talks (past 2 years)

- Lambda-calcul et correspondance de Curry-Howard, groupe de travail *Current Issues in the philosophy of practice of Mathematics and Informatics*, Toulouse, Jan 28, 2016.

### Summer/Winter Schools

- Linear Logic: the Exponentials. Lecture, *Linear logic: interaction, proofs and computation* (LL2016), Lyon, Nov 8, 2016.
- Light Logics and Implicit Computational Complexity. Lecture, *Summer School on Linear Logic and Geometry of Interaction* (part of CSL 2013), Turin, Aug 31, 2013.

## Invited Talks for the General Public

- Modéliser les modèles de calcul. Inauguration of the laboratory *Sciences Mathématiques de Paris*, Institut Océanographique de Paris, Sep 27, 2011.
- Démonstrations et programmes: une approche géométrique. *Maths en mouvement*, ENS Paris, Jun 1st, 2010.

## Supervision and Advisorship

---

### Post-doctoral Researchers

<b>2013–2014:</b>	Hugh Steele	LOGOI grant
<b>2010–2011:</b>	Tobias Heindel	COMPLICE grant
<b>2010:</b>	Daniel de Carvalho	COLLODI grant
<b>2009–2010:</b>	Giulio Manzonetto	COLLODI grant
<b>2009–2010:</b>	Chung-Kil Hur	COLLODI grant

### Ph.D. Students

<b>2014–present:</b>	Luc Pellissier	co-advised with Stefano Guerrini (Paris 13)
<b>2014–present:</b>	Pierre Vial	co-advised with Delia Kesner (Paris 7)
<b>2010–2014:</b>	Aloïs Brunel	co-advised with Stefano Guerrini (Paris 13)
<b>2010–2013:</b>	Andrei Dorman	co-advised with Lorenzo Tortora de Falco (Roma Tre)

NB: except for Pierre Vial, whose thesis I supervise at 60%, all of the above co-advisorships are only formal and I was or am the student's main advisor (this is because it is only in Nov 2017 that I acquired my *habilitation*, a French degree necessary to officially advise Ph.D. students).

### M.S. Students (internships and theses)

<b>2016:</b>	Marc de Visme (concurrency and linear logic)
<b>2016:</b>	Naïm El Ouraoui (Coq formalization of linear explicit substitutions; with Micaela Mayero)
<b>2014:</b>	Luc Pellissier (free models of linear logic and Kan extensions) Pierre Vial (infinitary affine $\lambda$ -calculus)
<b>2011:</b>	Nicolas Gastineau (geometry of interaction and denotational semantics)
<b>2010:</b>	Neil Julien Ross (full abstraction for interaction combinators) Jean-Marie Madiot (non-idempotent intersection types; co-supervised with Michele Pagani)
<b>2009:</b>	Andrei Dorman (implicit computational complexity) Giulio Guerrieri (geometry of interaction and proof nets)
<b>2008:</b>	Thomas Seiller (geometry of interaction and vN algebras; with Claudia Faggian)

### Undergraduate Students (projects)

<b>2015:</b>	Naïm El Ouraoui (Coq formalization of linear explicit substitutions; with Micaela Mayero)
<b>2014:</b>	Agathe Herrou (Coq formalization of linear explicit substitutions; with Micaela Mayero)

## Teaching

---

Year	University	Curriculum, Level*	Type†	Class	Hours
2003-2004	Aix-Marseille 2	math+CS, L1	TP	Intro to CS	64
	Aix-Marseille 2	math+CS, L1	TP	Algorithms and Data Structs	30

2004-2005	Aix-Marseille 2	math+CS, L1	TD+TP	Geometry and Computer Graphics	40
2005-2006	Aix-Marseille 2	CS, L1	TP	Introduction to Programming	42
	Aix-Marseille 2	math+CS, L1	TD+TP	Geometry and Computer Graphics	40
2006-2007	IUT Paris 13	CS, IUT1	TD	Discrete Mathematics	27
2010-2011	Paris 7	math, M2	CM+TD	Proof Theory	24
2011-2012	Paris 7	math, M2	CM+TD	Proof Theory	24
2012-2013	Paris 7	math, M2	CM+TD	Proof Theory	24
	Paris 13	CS, M2	CM+TD	Logic, Interaction, Complexity	24
2013-2014	Paris 7	math, M2	CM	Proof Theory	24
2015-2016	Paris 13	CS, M1	CM+TD	Proof Theory	36
	Paris 13	CS, M2	CM+TD	Process Calculi	36
2016-2017	Paris 13	CS, M1	CM+TD	Proof Theory	36
	Paris 13	CS, M2	CM+TD	Process Calculi	36
	Paris 13	CS, M1	TD	Functional Programming	9
	Paris 7	math, M2	CM	Proofs and Programs	36

- \* L1, IUT1 = freshmen  
M1, M2 = 1st and 2nd year grad students  
† CM = classes  
TD, TP = labs

## Service to the Research Community

---

### PC member of international conferences

- POPL 2017 (External Research Committee)
- CSL-LICS 2014

### PC of international workshops

#### Chair

- DICE 2016

#### Member

- LCC 2018
- LINEARITY 2016
- LCC 2015
- LOLA 2015
- TERMGRAPH 2014
- FOPARA 2013
- DICE 2011

As external referee, I review an average of 5 papers/year, for various conferences and journals.

### Ph.D. Committees

- Matthieu Perrinel, ENS Lyon, 2015
- Alois Brunel, Paris 13, 2014
- Andrei Dorman, Roma Tre, 2013
- Giulio Guerrieri, Roma Tre, 2013
- Christine Tasson, Paris 7, 2009
- Vivek Nigam, Ecole Polytechnique, 2009

### Committees for Assistant Professor Positions

- MCF 199, section 27 (computer science), Paris 13, 2016
- MCF 516, section 25 (mathematics), Paris 7, 2011
- MCF 235, section 27 (computer science), Paris 13, 2011

**Funding Panels**

- Ville de Paris, grant review, 2014
- ANR, grant review, 2009

**Organization of Conferences and Workshops**

- CiE 2016, member of the organizing committee
- Workshop on Higher Order Complexity (IHP, Paris, Jul 2014), organizer
- Bounded Linear Logic Workshop (Fontainebleau, Dec 2013), co-organizer
- Logic and interactions (Marseille, Jan-Feb 2012), member of the scientific committee

**Seminars**

- Chocla seminar (2011–present, co-organizer): monthly seminar at ENS Lyon
- LCR seminar (2009–2016, organizer): weekly seminar of the LCR group at my lab

**Administration**

- Member of the *conseil de laboratoire* (Managing Board) of LIPN, 2012–present
- Member of the Web Committee of LIPN (administrator of the web page of my research group), 2009–present