LUCA CAPUTO

CURRICULUM VITAE   04 October 2012

PERSONAL INFORMATIONS

Surname:	Caputo
Name:	Luca
Birth date:	9 October 1981
Sex:	Male
Personal address:	via Santa Maria 56, 56100 Pisa, Italy
Present position:	Postdoctoral researcher
Professional address:	Dipartimento di Matematica Applicata, via Buonarroti 1/c, 56127 Pisa, Italy
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EDUCATION

Postdoctoral Fellowship (financed by INdAM)   *September 2012 - August 2013*
Dipartimento di Matematica, Università di Pisa
Mentor: R. Dvornicich, Università di Pisa

Research and Teaching Assistantship (A.T.E.R.)   *October 2011 - August 2012*
XLIM, Département Mathématiques Informatique, Université de Limoges (for research)
Département Techniques de Commercialisation, I.U.T. du Limousin (for teaching)

Postdoctoral Fellowship (financed by Région Limousin)   *November 2010 - September 2011*
XLIM, Département Mathématiques Informatique, Université de Limoges

Mentor: A. C. Movahhedi, Université de Limoges

Postdoctoral Fellowship (financed by IRCSET)   *November 2008 - October 2010*
University College Dublin

Mentor: K. Hutchinson, University College Dublin

Ph.D. in Mathematics   *January 2005 - April 2009*
Università di Pisa - Université de Bordeaux 1

Thesis: *On the structure of étale wild kernels of number fields*

Advisors: R. Dvornicich, Università di Pisa and J.-F. Jaulent, Université de Bordeaux 1

Graduation Grade: Très Honorable

Defense place and date: Pisa, 2 April 2009

Laurea in Mathematics (MSc degree)   *October 2000 - October 2004*
Università di Pisa

Thesis: *Il problema della classificazione delle estensioni locali: le estensioni di grado p^2 di $\mathbb{Q}_p$ (Classifying local extensions: the extensions of degree p^2 of $\mathbb{Q}_p$) .*

Advisor: R. Dvornicich, Università di Pisa

Graduation Grade: 110/110 e Lode

Defense place and date: Pisa, 28 October 2004

HONOURS AND AWARDS

INdAM "A. Schirillo" Postodoctoral Fellowship September 2012-August 2013

Région Limousin Postdoctoral Fellowship November 2010- October 2011

IRCSET Postdoctoral Fellowship November 2008- October 2010

Universitá di Pisa Fellowship for Ph.D. students 2005-2007

INdAM Scholarship for undergraduate students in Mathematics 2000-2004

TEACHING EXPERIENCE	

I.U.T. du Limousin, France   *October 2011 - August 2012*
Teaching assistant

Level: First year Bachelor.
Subject: Office automation.
Main activities and responsibilities: Teaching, tutoring students and preparing exercises for exams.
Teaching hours: 192.

Università di Pisa, Italy   *October 2007 - June 2008*
Teaching assistant (under the direction of V.M. Tortorelli)

Level: First year Bachelor.
Subject: Introduction to set theory, one and several variables calculus (differential calculus and integration), ordinary differential equations and dynamical sistems.
Main activities and responsibilities: Teaching, tutoring students and preparing exercises for exams.
Teaching hours: 50.

PUBLICATIONS

Caputo L., Cobbe A., *An explicit candidate for the set of Steinitz classes of tame Galois extensions with fixed Galois group of odd order*, to appear in Proc. London Math. Soc., 2011;

Caputo L., *The Brauer-Kuroda formula for higher S-class numbers in dihedral extensions of number fields*, Acta Arith. 151 n.3 (2012);

Caputo L., *Splitting in the K-theory localization sequence of number fields*, J. Pure Appl. Algebra 215 n. 4 (2010), 485-495;

Caputo L., Nuccio F. A. E., *A criterion for Greenberg's conjecture*, Proc. Amer. Math. Soc. 136 (2008), 2741-2744;

Caputo L., *A classification of the extensions of degree p^2 over $\mathbb{Q}_p$ whose normal closure is a p-extension*, J. Théor. Nombres Bordeaux 19 (2007), 337-355.

PREPRINTS

Caputo L., Movahhedi A., *On the short exact sequence relating the wild and tame kernels*, in preparation, 2012;

Caputo L., Vinatier S., *Erez's theorem revisited*, in preparation, 2012;

Caputo L., *Structure of étale wild kernels of number fields*, in preparation, 2012;

Caputo L., Nuccio F. A. E., *On fake $\mathbb{Z}_p$-extensions of number fields*, electronic preprint arXiv:0807.1135v2, 2008;

Caputo L., *Existence of integral basis in certain cyclic extensions of $\mathbb{Q}(\zeta_{p^t})$*, preprint of the Università di Pisa, 2006.

SCHOOLS AND CONFERENCES ATTENDED

Galois Representations and Arithmetic Geometry (Conference to honour Sir Martin J. Taylor on his 60th birthday), 11-13 July 2012, IMB, Bordeaux, France;

Colloque Jeunes Chercheurs en Théorie des Nombres, 13-15 June 2012, ENS, Lyon, France;

Workshop International NTCCCS, 26-28 April 2012, Université Mohammed Premier, Oujda, Morocco;

Colloque K-théorie et théorie d'Iwasawa, 21-22 October 2011, LMB, Besançon, France;

Biduum Ultramétrique (7-ième édition), 14-15 June 2011, XLIM, Limoges, France;

Progrès récents en théorie des modules galoisiens, 21-25 March 2011, CIRM, Luminy, France;

Colloque Jeunes Chercheurs en Théorie des Nombres, 2-4 June 2010, IRMA, Strasbourg, France;

Autumn School "Towards a p-adic Langlands correspondence", 26-31 October 2009, Universidad de Sevilla, Seville, Spain;

Advanced School and Workshop on p-adic Analysis and Applications, 31 August- 18 September 2009, ICTP, Trieste, Italy;

CMI Summer School on Galois Representations, 15 June- 10 July 2009, University of Hawaii at Manoa, Honolulu, Hawaii, USA;

Second University College Dublin-University of Nottingham Number Theory Day, 2 May 2009, University of Nottingham, Nottingham, United Kingdom;

First University College Dublin-University of Nottingham Number Theory Day, 1 November 2008, University College Dublin, Dublin, Ireland;

Iwasawa 2008, 29 June- 4 July 2008, Augsburg - Kloster Irsee, Germany;

Summer School in Iwasawa Theory, 9-13 August 2007, McMaster University, Hamilton, Canada;

XVIII-èmes Rencontres Arithmétiques de Caen, 26-27 June 2007, Université de Caen, Caen, France;

School and Conference on Algebraic K-Theory and its Applications, 14 May- 1 June 2007, ICTP, Trieste, Italy;

Colloque K-théorie et théorie d'Iwasawa, 29-30 June 2006, Université de Franche-Comté, Besançon, France;

SMI Summer Course in Algebraic Geometry, 15-27 August 2005, Cortona, Italy.

INVITED TALKS   *Modules galoisiens de torsion et théorème de Stickelberger*, Colloque Jeunes Chercheurs en Théorie des Nombres, ENS, Lyon, France, 15 June 2012;

Racine carrée de la codifférente et théorème de Stickelberger, Workshop International NTCCCS, Oujda, Morocco, 27 April 2012;

Autour d'une conjecture sur les classes de Steinitz des corps de nombres, Séminaire de Théorie des Nombres, Université de Limoges, Limoges, France, 29 November 2011;

Structure des groupes de K-théorie supérieure des corps de nombres, Séminaire de Géométrie Non - Commutative, Université de Toulouse, Toulouse, France, 4 April 2011;

Noyaux sauvages étales des corps de nombres, Séminaire de Théorie des Nombres, Université de Franche-Comté, Besançon, France, 9 March 2011;

Sur la structure des groupes de K-théorie des corps de nombres, Colloque Jeunes Chercheurs en Théorie des Nombres, IRMA, Strasbourg, France, 2 June 2010;

Relations de Brauer et structures galoisiennes dans les extensions diédrales, Séminaire de Théorie des Nombres, Université de Limoges, Limoges, France, 30 November 2009;

Brauer relations, K-Theory, Quadratic Forms and Number Theory Seminar, University College Dublin, Dublin, Ireland, 14 October 2009;

On the structure of étale wild kernels of number fields, Second University College Dublin-University of Nottingham Number Theory Day, University of Nottingham, Nottingham, United Kingdom, 2 May 2009;

Realizability problem for étale wild kernels of number fields, K-Theory, Quadratic Forms and Number Theory Seminar, University College Dublin, Dublin, Ireland, 18 February 2009;

Relations de Brauer pour les nombres de classes supérieurs dans les extensions diédrales, Séminaire de Théorie des Nombres, Université de Caen, Caen, France, 12 December 2008.

EXPOSITORY TALKS   *Classi di Chinburg e struttura di moduli di Galois nei campi di numeri*, Seminario di Teoria dei Numeri, Università di Pisa, Pisa, 9 June 2011;

Conjectures de Stark (several talks), Groupe de Travail sur les Conjectures de Stark, Université de Limoges, Limoges, France, 2010/11;

Description de Coates pour le K_2 de corps de nombres, Séminaire du Groupe de Travail en Théorie des Nombres, Université de Bordeaux 1, Bordeaux, France, 20 June 2008;

Bases relatives d'entiers dans les extensions de Kummer, Séminaire (des doctorants en théorie des nombres) Jouve-Pazuki, Université de Bordeaux 1, Bordeaux, France, 13 May 2008;

K-teoria degli anelli degli interi e congettura di Vandiver, Seminario sui Campi Ciclotomici, Università di Pisa, Pisa, Italy, 5 December 2007;

Introduction au K_2 des corps de nombres, Séminaire (des doctorants en théorie des nombres) Jouve-Pazuki, Université de Bordeaux 1, Bordeaux, France, 21 March 2007;

Etale wild kernels: from cohomology to arithmetic, Séminaire du Groupe de Travail en Théorie des Nombres, Université de Bordeaux 1, Bordeaux, France, 16 March 2008;

Classificazione delle estensioni di gruppi, Seminario di Algebra, Teoria dei Numeri e Geometria Aritmetica, Università di Pisa, Pisa, Italy, 4 March 2005;

Esistenza delle estensioni di gruppi, Seminario di Algebra, Teoria dei Numeri e Geometria Aritmetica, Università di Pisa, Pisa, Italy, 25 February 2005.

RESEARCH INTERESTS

- Classical and noncommutative Iwasawa theory of number fields

- K-theory and motivic cohomology of ring of integers of number fields

- Special values of zeta and L-functions of number fields and Lichtenbaum's conjectures

- Additive structure of ring of integers of number fields

- Galois module structure of rings of integers and units and Stark's conjectures

LANGUAGE SKILLS (SELF-ASSESSMENT)

	Spoken Interaction	Reading	Writing
Italian	Mother tongue		
English	Good	Very good	Good
French	Good	Very good	Good
Spanish	Good	Very good	Good

OTHER ACTIVITIES

- Organizer of a working group on Stark's conjectures at the DMI, Université de Limoges (2010-2011).
- Co-organizer (with G. Peruginelli) of the Seminar of Ph.D. Students in Algebra, Number Theory and Arithmetic Geometry at the Dipartimento di Matematica, Università di Pisa (2005).
- Referee for: Journal de Théorie des Nombres de Bordeaux (since 2011), Journal of Number Theory (since 2012).
- Referee for: Math Reviews AMS (since 2009), Zentralblatt MATH (since 2010).