CURRICULUM VITÆ

Guillaume RICOTTA
Nationality: French.
Date of birth: 09 April 1976.
Place of Birth: Beauvais (Oise, France).
Marital status: married.

Contact informations

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Academic background

November 22, 2011

- "Habilitation à Diriger des Recherches", Université Bordeaux 1:

    Etude analytique des formes automorphes et de leurs fonctions L

    namely

    Analytic study of automorphic forms and their L-functions.

    The referees are Etienne Fouvry, Andrew Granville and Emmanuel Kowalski. The members of my HDR examining board are Karim Belabas, Yuri Bilu, Etienne Fouvry, Emmanuel Kowalski and Philippe Michel.

2004-2005

- Postdoctoral fellow at Université de Montréal (Québec,Canada) under the direction of Andrew Granville.

2004

- "Doctorat de Mathématiques pures", Université de Montpellier 2 (France) obtained with honours:

    Zéros réels et taille des fonctions L de Rankin-Selberg par rapport au niveau

    namely

1

Real zeros and size of Rankin-Selberg L functions in the level
aspect.

The referees are Etienne Fouvry and Henryk Iwaniec. The members of my PhD examining board are Bryan Conrey, Etienne Fouvry, Emmanuel Kowalski, Philippe Michel, Emmanuel Royer and Robert Silhol.

2001-2004

- "Allocataire moniteur" (namely PhD and teaching duties) at Université de Montpellier 2 (France). My teaching advisor is Jacques Lafontaine and my research advisor is Philippe Michel.

2000-2001

- "Diplôme d'Études Approfondies" of Mathematics at Université de Montpellier 2 (France) obtained with honours.
- Post-graduate vocational qualification of Mathematics and Applications (third year) at École Normale Supérieure de Lyon (France) obtained with honours.

1999-2000

- "Agrégation externe de Mathématiques" at École Normale Supérieure de Lyon (France). Ranked 63 about 500.

1998-1999

- Master degree in Mathematics at Université Claude Bernard (Lyon, France) obtained with honours.
- Post-graduate vocational qualification of Mathematics and Applications (second year) at École Normale Supérieure (Lyon, France) obtained with honours.

1997-1998

- Bachelor degree in Mathematics at Université Claude Bernard (Lyon, France) obtained with honours.
- Post-graduate vocational qualification of Mathematics and Applications (first year) at École Normale Supérieure de Lyon (France) obtained with honours.

1994-1997

- "Mathématiques Supérieures et Spéciales" (Post-secondary program leading to the nationwide competitive examinations to "Grandes Écoles") at Lycée Joffre (Montpellier, France).

1994

- "Baccalauréat C" (Mathematics and Sciences) obtained with honours.

1991-1994

- "Lycée" Saint-Joseph (Carpentras,France).

1987-1991

- "Collège" Saint-Joseph (Carpentras, France).

1982-1987

- "École primaire" Saint-Joseph (Carpentras, France).

1979-1982
- "École maternelle" La Cité Verte (Carpentras, France).

Military Service
Exempted in October 1998.

Positions

- 2013-....: "Maître de Conférences Habilité à Diriger des Recherches" (tenured assistant professor), Université de Bordeaux.
- 2011-2013: "Maître de Conférences Habilité à Diriger des Recherches" (tenured assistant professor), Université Bordeaux 1.
- 2011-2013: **Marie Curie Fellow** (Intra-European-Fellowship within the 7th European Community Framework Programme[1]), ETH Zürich.
- 2005-2011: "Maître de Conférences" (tenured assistant professor), Université Bordeaux 1.

Invited visits in foreign institutions
- April 21, 2013 – May 4, 2013: The Ohio State University, on the invitation of Roman Holowinsky.
- February 3, 2012 – February 18, 2012: The Ohio State University, on the invitation of Roman Holowinsky.
- January 3, 2011 – April 31, 2011: Centre Interfacultaire Bernoulli at Ecole Polytechnique Federale de Lausanne, on the invitation of Emmanuel Kowalski and Philippe Michel. Special semester: Group actions in Number Theory.
- July 19, 2010 – July 30, 2010: Forschungsinstitut für Mathematik (Zurich).
- April 29, 2010 – May 28, 2010: Centre de Recherches Mathématiques, Montréal.
- October 20, 2009 – November 1, 2009: Alfréd Rényi Institute (Hungarian Academy of Sciences), on the invitation of Gergely Harcos.
- May 1, 2008 – August 31, 2008: University of Nottingham (United Kingdom), on the invitation of Ivan Fesenko.
- December 1, 2007 – January 31 2008: University of Nottingham (United Kingdom), on the invitation of Ivan Fesenko.
- January 6, 2006 – June 28, 2006: Special semester, Analysis in Number Theory, Centre de Recherches Mathématiques, Montréal (Québec, Canada).
- October 18, 2004 – October 26, 2004: Princeton University (New-Jersey, United States).
- June 30, 2002 – July 20, 2002: Park City Mathematics Institute (PCMI), Park City (Utah, United-States).

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[1]Project ANERAUTOHI, grant agreement number PIEF-GA-2009-251271

Invited lectures (Workshop-Conference-Summer School)

2018

- A Celebration of CICMA's Postdoctoral Program, Montreal, July 2-6.

2014

- Automorphic Forms and Arithmetic, Göttingen, February 10-14.

2013

- Fourier coefficients of $GL(3)$ automorphic forms in arithmetic progressions, Théorie analytique des Nombres, CIRM, June 17-21, on the occasion of Professor Étienne Fouvry's 60th birthday.

2009

- Théorie des nombres et applications, CIRM, November 30-December 4.
- Géométrie, dynamique et représentations des groupes, CIRM, November 9-13.
- Explicit Methods in Number Theory, Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach (Germany), July 12-18.

2008

- French-Canadian Conference (Montreal, Canada), June 1-6.

2007

- Explicit Methods in Number Theory, Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach (Germany), July 15-21.
- XXV$^{\text{iémes}}$ Journées Arithmétiques Edimburgh (Scotland), July 2-6.
- Analytic Number Theory School, International Centre for Theoretical Physics, Trieste, May 5-11.

2006

- Arithmetic Aspects of Random Matrices and Quantum Chaos, Université Bordeaux 1 (France), April 24-28.
- L-functions and Related Themes, Centre de Recherches Mathématiques, Montréal (Québec, Canada), February 14.

2005

- Conference in honour of Henryk Iwaniec, Université Bordeaux 1, October 25.

2004

- CMS Winter 2004 Meeting, Montréal (Québec, Canada), December 11-13.
- Québec-Maine Number Theory Conference, Université de Laval, Québec (Quebec, Canada), October 2-3.
- Workshop on Spectral Theory and Automorphic Forms, Centre de Recherches Mathématiques, Montréal (Québec, Canada), May 8.

- Colloque Jeunes Chercheurs en théorie des nombres 2004, La Grande-Motte (France), March 29-31.

Invited participant (Workshop-Conference-Summer School)

2022

- Rencontres de théorie analytique et élémentaire des nombres, Institut Henri Poincaré, May 23.
- Séminaire Bourbaki, Institut Henri Poincaré, June 17-18.
- A celebration of analytic number theory, a conference in honor of Andrew Granville, Centre de recherches mathématiques, Montréal, September 5-9.

2021

- Balu fest, IMSc, Chennai, March 12-18.
- Number Theory, Institut Mittag Leffler, Stockholm, January 11-April 30.

2020

- Rencontres de théorie analytique et élémentaire des nombres, Institut Henri Poincaré.
- Special Session in Number Theory and Algebraic Geometry during the 2020 Australian Mathematical Society Meeting, December 8-10.
- Quebec-Maine Number Theory Conference 2020, Université de Laval, September 26-27.
- Nordic Number theory Network Days XII, DTU Copenhague, May 28-29.

2014

- Bourbaki seminar, March 29.
- Number theory and applications, CIRM (Luminy), March 10-14.

2013

- D-Days: A panorama of geometry. Conference in honor of Dietmar Salamon's 60th birthday, FIM (Zürich), June 10-14.
- Arithmetics and Geometry, 25 years Number Theory Seminar at ETH (Zürich), FIM (Zürich), June 3-7.
- Equidistribution in Number Theory and Dynamics, FIM (Zürich), March 18-22.
- Number Theory Days 2013, EPFL (Lausanne), March 15-16.

2012

- Number Theory Days 2012, FIM (Zürich), March 30-31.
- Number theory and applications, CIRM (Luminy), January 16-20.

2011

- Initial winter school, Centre Interfacultaire Bernoulli, EPFL Lausanne, January 18-28.

2008

- Analytic theory of GL_3 automorphic forms and applications, American Institute of Mathematics, Palo Alto (California, United States), November 17-21.

- Random matrices, L-functions and primes, ETH Zurich, October 27-31.
- Algorithmics of L-functions, September 14-18 (ETH Zurich, Switzerland).
- Multiple Dirichlet Series and Applications to Automorphic Forms, August 4-8 (Edinburgh, Scotland).

2006

- Subconvexity bounds for L-functions, American Institute of Mathematics, Palo Alto (California, United States), October 16-20.
- Colloque international de Théorie Analytique des Nombres, at the occasion of Jean-Marc Deshouillers' birthday (60 years old) , CIRM, September 11-15.
- Formes modulaires p-adiques et applications, Centre de Rencontres Mathématiques, July 17-21.
- Additive Combinatorics, Centre de Recherches Mathématiques, Montréal (Québec, Canada), April 5-12.
- CRM-Clay School on Additive Combinatorics, Centre de Recherches Mathématiques, Montréal (Québec, Canada), March 30-April 5.
- Anatomy of integers, Centre de Recherches Mathématiques, Montréal (Québec, Canada), March 13-17.

2005

- SMS-NATO ASI Summer School Equidistribution in Number Theory, Université de Montréal, Montréal (Québec, Canada), July 11-22.

2004

- Workshop on Matrix Ensembles and L-functions, Newton Institute, Cambridge (England), July 12-16.

2003

- XXIII èmes Journées Arithmétiques Graz 2003, Graz (Austria), July 6-12.
- "Colloque Jeunes": modular forms and transcendance, CIRM, Luminy (France), May 26-30.
- Program on Automorphic Forms, Fields Institute, Toronto (Ontario, Canada), April 12-May 11.

2002

- Automorphic Forms and Applications, Institute for Advanced Studies (IAS) / Park City Mathematics Institute (PCMI), Park City (Utah, United-States), June 30-July 20.

Seminar talks
2021

- Kloosterman paths of prime powers moduli, Séminaire Dynamique, Arithmétique, Combinatoire ERNEST , Institut de Mathématiques de Marseille, September 7.

2019

- Kloosterman paths of prime powers moduli, Séminaire de théorie des nombres de Nancy-Metz, Institut Élie Cartan (Nancy), May 16.

2017

- Kloosterman paths of prime powers moduli, Rencontres de théorie analytique et élémentaire des nombres, Institut Henri Poincaré (Paris), January 30.

2016

- Fourier coefficients of $GL(N)$ automorphic forms in arithmetic progressions, Séminaire de Théorie des Nombres, Université Blaise Pascal (Clermont-Ferrand), June 21.

2013

- Fourier coefficients of $GL(3)$ automorphic forms in arithmetic progressions, The Ohio State University Number Theory Seminar, April 23.
- Inverse Helgason transform in number theory, Séminaire Combinatoire et Théorie des Nombres, Institut Camille Jordan (Lyon 1), January 29.

2012

- Inverse Helgason transform in analytic number theory, GANT seminar, EPFL (Lausanne), November 27.
- Inverse Helgason transform in number theory, Séminaire d'algèbre et de Théorie des Nombres, Laboratoire de Mathématques de Besançon, November 15.
- Rencontre de théorie analytique et élémentaire des nombres, Institut Henri Poincaré (Paris), June 11.
- Bounding sup norms of automorphic forms, Number Theory Seminar, ETH (Zürich), May 25.
- Height of Heegner points, The Ohio State University Number Theory Seminar, February 09.

2011

- Height of Heegner points, GANT seminar (EPFL, Lausanne), April 18.

2010

- Quelques informations sur la hauteur des points de Heegner, Laboratoire de Mathematiques de Besançon, November 4.
- Séminaire de Théorie des Nombres et Combinatoire (Université Claude Bernard Lyon 1), February 9.

2009

- Zeros of symmetric power L-functions, Alfréd Rényi Institute (Hungarian Academy of Sciences), October 29.

2008

- Zeros of symmetric power L-functions, School of Mathematical Sciences (Nottingham), August 13.
- Mean-periodicity and zeta functions, Heilbronn Seminar (Bristol), May 21.
- Asymptotic height of Heegner points and applications, School of Mathematical Sciences (Nottingham), January 16.

2007

- Rencontre de théorie analytique et élémentaire des nombres, Institut Henri Poincaré (Paris), October 22.

2006

- Québec-Vermont Number Theory Seminars, CICMA, March 2.

2005

- Séminaire arithmétique et géométrie algébrique (SAGA), Université de Paris-Sud XI, October 18.

2004

- Québec-Vermont Number Theory Seminars, CICMA, October 28.
- Princeton University/Institute for Advanced Study Number Theory Seminar, October 25.
- Séminaire de théorie des nombres et combinatoire, Institut Girard Desargues, Université de Lyon 1, May 27.
- Séminaire de théorie analytique des nombres et problèmes diophantiens, Université Bordeaux 1, Talence (France), March 4.
- Séminaire de théorie des nombres, algorithmique et cryptographie du Mirail, Université de Toulouse II (STNACM), Toulouse (France), February 5.
- Séminaire de théorie analytique et élémentaire des nombres, Université de Paris-Sud XI, Paris (France), February 2.

Teaching duties

2022-2023

- Course and Tutorial Mathématiques approfondies. First and second semesters in Université de Bordeaux.
- Tutorial in Linear Algebra 2. Third semester in Université de Bordeaux.
- Tutorial in Euclidien Spaces. Fourth semester in Université de Bordeaux.

2021-2022

- Course and Tutorial Mathématiques approfondies. First and second semesters in Université de Bordeaux.
- Tutorial in Integration. Fifth semester in Université de Bordeaux.

- Tutorial in Euclidien Spaces. Fourth semester in Université de Bordeaux.

2020-2021

- Course Coloration Mathématique. First semester in Université de Bordeaux.
- Tutorial in Linear Algebra 2. Third semester in Université de Bordeaux.
- Tutorial in Linear Algebra 1. Second semester in Université de Bordeaux.
- Tutorial in Integration. Fifth semester in Université de Bordeaux.
- Tutorial in Euclidien Spaces. Fourth semester in Université de Bordeaux.
- Tutorial in Analysis. Second semester in Université de Bordeaux.

2019-2020

- Course Coloration Mathématique. First semester in Université de Bordeaux.
- Tutorial in Linear Algebra 2. Third semester in Université de Bordeaux.
- Tutorial in Linear Algebra 1. Second semester in Université de Bordeaux.
- Tutorial in Integration. Fifth semester in Université de Bordeaux.
- Tutorial in Euclidien Spaces. Fourth semester in Université de Bordeaux.
- Tutorial in Analysis. Second semester in Université de Bordeaux.
- Supervision of Amal Boughnim in Université de Bordeaux: "On some exponential sums over the primes".
- Supervision of Théo Untrau in Université de Bordeaux: "Linnik's ergodic method and distribution of integer points on spheres".

2018-2019

- Course Coloration Mathématique. First semester in Université de Bordeaux.
- Course Analysis 2. Third semester in Université de Bordeaux.
- Tutorial in Functions of several variables. Third semester in Université de Bordeaux.
- Tutorial Number Theory. Master. Eighth semester in Université de Bordeaux.
- Tutorial in Euclidien Spaces. Fourth semester in Université de Bordeaux.
- Tutorial in Analysis. Second semester in Université de Bordeaux.

2017-2018

- Course Coloration Mathématique. First semester in Université de Bordeaux.
- Course Analysis 2. Third semester in Université de Bordeaux.
- Tutorial in Functions of several variables. Third semester in Université de Bordeaux.
- Tutorial Number Theory. Master. Eighth semester in Université de Bordeaux.

- Tutorial in Euclidien Spaces. Fourth semester in Université de Bordeaux.
- Introduction to LaTeX. URFIST (Bordeaux).

2016-2017

- Course Coloration Mathématique. First semester in Université de Bordeaux.
- Course Analysis 2. Third semester in Université de Bordeaux.
- Tutorial in Functions of several variables. Third semester in Université de Bordeaux.
- Tutorial Number Theory. Master. Eighth semester in Université de Bordeaux.
- Tutorial in Euclidien Spaces. Fourth semester in Université de Bordeaux.
- Introduction to LaTeX. URFIST (Bordeaux).

2015-2016

- Course Basis of analysis. First semester in Université de Bordeaux.
- Course Basis of Mathematics and Computer Science. First Semester in Université de Bordeaux.
- Tutorial in Analysis 1. Second semester in Université de Bordeaux.
- Tutorial in Integrals and Differential Equations. Fourth semester in Université de Bordeaux.
- Tutorial in Euclidean Spaces. Fourth semester in Université de Bordeaux.
- Supervision of Corentin Darreye in Université de Bordeaux: "Fourier coefficients in arithmetic progressions".

2014-2015

- Course Basis of analysis. First semester in Université de Bordeaux.
- Course Basis of Mathematics and Computer Science. First Semester in Université de Bordeaux.
- Tutorial in Analysis 1. Second semester in Université de Bordeaux.
- Tutorial in Integrals and Differential Equations. Fourth semester in Université de Bordeaux.
- Tutorial in Euclidean Spaces. Fourth semester in Université de Bordeaux.
- Tutorial in Series and Multiple Integrals. Fourth semester in Université de Bordeaux.
- Supervision of Corentin Darreye (master student ENS Cachan) in Université de Bordeaux: "On Weil's bound for exponential sums over finite fields".

2013-2014

- Course Basis of analysis. First semester in Université Bordeaux 1.
- Course Basis of Mathematics and Computer Science. First Semester in Université Bordeaux 1.
- Tutorial in Analysis 1. Second semester in Université Bordeaux 1.
- Tutorial in Integrals and Differential Equations. Fourth semester in Université Bordeaux 1.

2010-2011

- Supervision of Olga Balkanova (master student) in Université Bordeaux 1 (France): "$GL(3)$ Kloosterman sums".
- Supervision of René Olivetto (master student) in Université Bordeaux 1 (France): "Sup norms of $GL(2)$ automorphic forms".
- Course in Methodologie First Semester (first year of university) in Université Bordeaux 1 (France).
- Course in MHT411A Third Semester (second year of university) in Université Bordeaux 1 (France). Groups, rings and fields.
- Tutorial in MHT411A Fifth Semester (third year of university) in Université Bordeaux 1 (France). Groups, rings and fields.

2009-2010

- Master Course on «Automorphic forms on $GL(3)$» in Université Bordeaux 1 (France).
- Course in MHT411A Third Semester (third year of university) in Université Bordeaux 1 (France). Groups, rings and fields.
- Tutorial in MHT411A Fifth Semester (third year of university) in Université Bordeaux 1 (France). Groups, rings and fields.

2008-2009

- Course in PNG301 Third Semester (second year of university) in Université Bordeaux 1 (France). Basis of Fourier Analysis.
- Course in Methodologie First Semester (first year of university) in Université Bordeaux 1 (France).
- Tutorial in Licence ST Third Semester (second year of university) in Université Bordeaux 1 (France). Teacher-cum-researcher in charge: Martin Sombra. Groups, rings and fields.
- Master Course on «Linnik's problems and harmonic analysis» in Université Bordeaux 1 (France).
- Tutorial in Master Crypto Seventh Semester (fourth year of university) in Université Bordeaux 1 (France). Teacher-cum-researcher in charge: Karim Belabas. Elliptic curves.
- Supervision of Pamkaj Botrel (master student) in Université Bordeaux 1 (France): "Equidistribution of Hecke eigenvalues".
- Supervision of Michael Adjedj and Christophe Fong (master students) in Université Bordeaux 1 (France): "Applications du couplage de Weil sur les courbes elliptiques".

2007-2008

- Course in PNG301 Third Semester (second year of university) in Université Bordeaux 1 (France). Basis of Fourier Analysis.
- Course in Methodologie First Semester (first year of university) in Université Bordeaux 1 (France).
- Tutorial in Licence ST Second Semester (first year of university) in Université Bordeaux 1 (France). Teacher-cum-researcher in charge: P. Cassou-Nogues. Groups, rings and fields.
- Course in PNG201 (Mathématiques pour les sciences de la matière 1) Second Semester (first year of university) in Université Bordeaux 1 (France). Basis on Real Analysis.

- Tutorial in Master Crypto Seventh Semester (fourth year of university) in Université Bordeaux 1 (France). Teacher-cum-researcher in charge: Karim Belabas. Elliptic curves.
- Supervision of Cindy Malaterre and Déborah Jourdes (master student) in Université Bordeaux 1 (France): "Applications du couplage de Weil sur les courbes elliptiques".

2006-2007

- Tutorial in Licence MISMI First Semester (first year of university) in Université Bordeaux 1 (France). Teacher-cum-researcher in charge: A. Yger.
- Course in PIN301 (Mathématiques pour les sciences de la matière 2). Third Semester (second year of university) in Université Bordeaux 1 (France). Basis of Fourier Analysis.
- Course in PIN204 (Mathématiques pour les sciences de la matière 1). Second Semester (first year of university) in Université Bordeaux 1 (France). Basis on Real Analysis.
- Tutorial in Licence ST. Second Semester (first year of university) in Université Bordeaux 1 (France). Teacher-cum-researcher in charge: A. Hénaut. Basis on Algebra.
- Supervision of students in Licence ST. Second Semester (first year of university) in Université Bordeaux 1 (France). Professional project.
- Supervision of Nicolas Castagnet (master student) in Université Bordeaux 1 (France): "Groupe des classes des corps cyclotomiques et applications arithmétiques".

2005-2006

- Tutorial in Licence MISMI. First Semester (first year of university) in Université Bordeaux 1 (France). Teacher-cum-researchers in charge: A. Iollo and E. Kowalski.
- Course in PIN301 (Mathématiques pour les sciences de la matière 2). Third Semester (second year of university) in Université Bordeaux 1 (France). Basis of Fourier Analysis.
- Supervision of Gwladys Pinaud (master student) in Université Bordeaux 1 (France): "Zéros non-triviaux de la fonction ζ de Riemann".
- Supervision of Leslie Blond (master student) in Université Bordeaux 1 (France): "Régions sans zéros pour les fonctions L de Dirichlet et applications arithmétiques".

2004-2005

- MAT 1903 Section C. First semester. Differential and Integral Calculus in Université de Montréal (Québec, Canada).
- MAT 1903 Section B. Second semester. Differential and Integral Calculus in Université de Montréal (Québec, Canada).

2003-2004

- Tutorial in Deug MIAS Second semester (first year of university) in Université de Montpellier 2 (France). Teacher-cum-researcher in

charge: N. Saby.

2002-2003

- Tutorial in Deug MIAS Second semester (first year of university) in Université de Montpellier 2 (France). Teacher-cum-researcher in charge : N. Saby.

2001-2002

- Tutorial in Deug MASS First semester (first year of university) in Université de Montpellier 2 (France). Teacher-cum-researcher in charge : M. Capdequi-Peyranere.
- Tutorial in Deug SM Second semester (first year of university) in Université de Montpellier 2 (France). Teacher-cum-researcher in charge : J. Lafontaine.

Master students

2019

- *On some exponential primes over the primes*, Amal Boughnim.
- *Linnik's ergodic method and distribution of integeer points on spheres*, Théo Untrau.

2016

- *Fourier Coefficients in arithmetic progressions*, Corentin Darreye.

2015

- *On Weil bound for exponential sums over finite fields*, Corentin Darreye.

2011

- $GL(3)$ *Kloosterman sums*, Olga Balkanova.
- *Sup norms of* $GL(2)$ *automorphic forms*, René Olivetto.

2009

- *Applications du couplage de Weil sur les courbes elliptiques*, Michael Adjedj and Christophe Fong.
- *Equidistribution of Hecke eigenvalues*, Pamkaj Botrel.

2008

- *Applications du couplage de Weil sur les courbes elliptiques*, Cindy Malaterre and Déborah Jourdes.

2007

- *Groupe des classes des corps cyclotomiques et applications arithmétiques*, Nicolas Castagnet.

2006

- *Zéros non-triviaux de la fonction* ζ *de Riemann*, Gwladys Pinaud,
- *Régions sans zéros pour les fonctions L de Dirichlet et applications arithmétiques*, Leslie Blond.

Doctoral students

- Yefei Ma (2022-2025), joint supervision with Jean-François Quint (Université de Bordeaux), Equidistribution through modular forms.
- Théo Untrau (2020-2023), joint supervision with Florent Jouve (Université de Bordeaux), Equidistribution issues of Kloosterman sums.
- Corentin Darreye (2017-2020), joint supervision with Florent Jouve (Université de Bordeaux), Fourier coefficients of automorphic forms in arithmetic progressions.
- Guillaume Hitsch (2015-2018), joint supervision with Emmanuel Royer (Université Blaise Pascal), Experimental and theoritical analysis of zeros of L-functions of $SL_3(\mathbb{Z})$.
- Olga Balkanova (2011-2015), joint supervision with Andrew Granville (Université de Montréal), Giuseppe Molteni (Università degli Studi di Milano) and Laurent Habsieger (Unité Mixte Internationale CNRS-CRM, Montréal), The fourth moment of automorphic L-functions of prime power level.
- Damien Bernard (2010-2013), joint supervision with Emmanuel Royer (Université Blaise Pascal), Statistiques des zéros non-triviaux de fonctions L de formes modulaires.

Jurys

2022

- Committee member of the dissertation defense of Paul Péringuey (Université de Lorraine) and referee, Artin conjecture on generalized primitive roots with few prime numbers, December 12.

2020

- Committee member of the dissertation defense of Corentin Darreye (Université de Bordeaux), Distribution of coefficients of half-integral weight modular forms, November 6.

2015

- Committee member of the dissertation defense of Xuanxuan Xiao (Université de Lorraine) and referee, Central values and values at the edge of the critical strip of automorphic L-functions, May 6.
- Committee member of the dissertation defense of Olga Balkanova (Université de Bordeaux), The fourth moment of automorphic L-functions of prime power level, April 22.

2013

- Committee member of the dissertation defense of Damien Bernard (Université Blaise Pascal), Statistics of non-trivial zeros of L-functions of modular forms, December 9.

2012

- Committee member of the dissertation defense of Aurélien Bajolet (Université Bordeaux 1), Numerical study of diophantine equations, December 7.

Administrative activities

- 2020-2024: Head of GDR "Jeunes Chercheuses et Jeunes Chercheurs en Arithmétique" GDR 2251 (CNRS).

- 2016-....: Organiser of the teaching class Coloration Mathématique (Université de Bordeaux)
- 2015-....: Member of Commission Consultative (hiring committee, Université de Bordeaux).
- 2017-2019: Head of GDR "Structuration de la théorie des nombres" GDR 2251 (CNRS).
- 2013-2014: Co-organiser of the conference Number Theory and Applications with Christian Maire (CIRM, March 10-14, 2014).
- 2009-2012: Local coordinator of the joint doctoral program Erasmus Mundus Algant at Université Bordeaux 1.
- 2008-2011: Member of Conseil de l'UFR Mathématiques et Informatique (Université Bordeaux 1).
- 2008-2010: Member of Commission Consultative (hiring committee, Université Bordeaux 1).
- 2008-2009: Co-organiser of the Winter School on Quantum Chaos in Université Bordeaux 1 (January 26-30, 2009) with Marie-Line Chabanol and Stéphane Nonnenmacher.
- 2007-2009: Organiser of the teaching class PNG301 (Université Bordeaux 1).
- 2007-2009: Organiser of the Number Theory Seminar of Université Bordeaux 1.
- 2007-2008: Organiser of the teaching class PNG201 (Université Bordeaux 1).
- 2004-2005: Co-organiser of the seminar of Analytic Number Theory in Université de Montréal (Québec, Canada) with Harald Helfgott and Habiba Kadiri.
- 2001-2002: Co-organiser of "Journées des doctorants", École doctorale I2S, Montpellier (France).
- Referee for CRSNG grant proposals.

Distinctions
- 2017-2021: Member of the "ANR" (a French grant) FLAIR, Familles de fonctions L: analyse, interactions, résultats effectifs (the main member is Florent Jouve).
- 2017-2021: "Prime d'encadrement doctoral et de recherche" (French grant).
- 2013-2017: "Prime d'excellence scientifique de niveau 2" (French grant).
- 2011-2013: **Intra-European Marie-Curie fellowship**[2].
- 2010: "Délégation CNRS" (6 months, French grant).
- 2009: "Délégation CNRS" (6 months, French grant).
- 2007-2011: "Prime d'encadrement doctoral et de recherche" (French grant).
- 2005-2009: Member of the "ANR Jeunes Chercheurs" (a French grant), Arithmetic Aspects of Random Matrices and Quantum Chaos (the main member is Emmanuel Kowalski and among other members are Marie-Line Chabanol, Christophe Delaunay and Jean-Marc

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[2]Project ANERAUTOHI, european grant PIEF-GA-2009-251271

Deshouillers).

Editorial Activities

- Reviewer for Mathematical Reviews.
- Referee for Advances in Mathematics.
- Referee for Algebra & Number Theory.
- Referee for Archiv der Mathematik.
- Referee for Canadian Journal of Mathematics.
- Referee for Compositio Mathematica.
- Referee for Functiones et Approximatio Commentarii Mathematici.
- Referee for International Journal of Number Theory.
- Referee for International Mathematics Research Notices.
- Referee for Inventiones Mathematicae.
- Referee for Journal of the American Mathematical Society.
- Referee for Journal of the European Mathematical Society.
- Referee for Journal of the Ramanujan Mathematical Society.
- Referee for Jounal of Number Theory.
- Referee for Journal de Théorie des Nombres de Bordeaux.
- Referee for Mathematische Zeitschrift.
- Referee for Nonlinearity.
- Referee for Proceedings of the London Mathematical Society.
- Referee for Transactions of the American Mathematical Society.

Publications

2022

Preprints are available at

> `http://www.math.u-bordeaux.fr/~ricotta`

and at

> `https://arxiv.org/`

or can be asked by e-mail at

> `Guillaume.Ricotta@math.u-bordeaux.fr`

- *Sommes de carrés*, a lesson of Philippe Michel at "Leçons de Mathé-matiques et d'Informatique d'aujourd'hui", to be published in **Cassini**, Collection Le Sel et le Fer.
- *A new bound for the sup-norm of automorphic forms on non-compact modular curves in the level aspect*, with Harald Helfgott.
- *An explicit density estimate.*

2020

- *Kloosterman paths of prime powers moduli, II*, with Emmanuel Royer and Igor Shparlinski, published in **Bulletin de la Société mathé-matique de France**, vol. 148, 173–188.

2019

- *Distribution of short sums of classical Kloosterman sums of prime powers moduli*, published in **Annales Mathématiques Blaise Pascal**, vol. 26, no. 1, 101–117.

- *On the sup-norm of $SL(3)$ Hecke-Maass cusp form*, with Roman Holowinsky, Kevin Nowland and Emmanuel Royer, published in **Publications Mathématiques de Besançon**, no.2, 53–80.

2018

- *Kloosterman paths of prime powers moduli*, with Emmanuel Royer, published in **Commentarii Mathematici Helvetici**, vol. 93, no. 3, 493–532.

2016

- *The amplification method in the context of $GL(n)$ automorphic forms*, published in **Functiones et Approximatio Commentarii Mathematici**, vol. 54, no. 2, 195–226.

2015

- *The amplification method in the $GL(3)$ Hecke algebra*, with Roman Holowinsky and Emmanuel Royer, published in **Publications Mathématiques de Besançon**, 13–40.

2014

- *Fourier coefficients of $GL(N)$ automorphic forms in arithmetic progressions*, with Emmanuel Kowalski, published in **Geometric and Functional Analysis**, vol. 24, no. 4, 1229–1297.

2012

- *Mean-periodicity and zeta functions*, with Ivan Fesenko and Masatoshi Suzuki, published in **Annales de l'Institut Fourier**, Vol. 62, no. 5, 1819–1887.

2011

- *Statistics for low-lying zeros of symmetric power L-functions in the level aspect*, with Emmanuel Royer, published in **Forum Mathematicum** 23, 969–1028.

2010

- *Lower order terms for the one-level densities of symmetric power L-functions in the level aspect*, with Emmanuel Royer, published in **Acta Arithmetica** 141, no. 2, 153–170.

2009

- *Comportement asymptotique des hauteurs des points de Heegner*, with Nicolas Templier, published in **Journal de Théorie des Nombres de Bordeaux** 21, no. 3, 741–753.
- *The second moment of Dirichlet twists of Hecke L-functions*, with Peng Gao and Rizwanur Khan, published in **Acta Arithmetica** 140, 57–65.
- *On the expected result for the second moment of twisted L-functions*, published in **Mathematisches Forschungsinstitut Oberwolfach**, Report No. 33/2009, Explicit Methods in Number Theory (July 12th-July 18th), 14–16.

2008

- *Hauteur asymptotique des points de Heegner*, with Thomas Vidick, published in **Canadian Journal of Mathematics**, Vol. 60, No. 6, 1406–1436.

2007

- *Statistics for low-lying zeros of Hecke L-functions in the level aspect*, published in **Mathematisches Forschungsinstitut Oberwolfach**, Report No. 34/2007, Explicit Methods in Number Theory (July 15th-July 21st), 19–24.

2006

- *Real zeros and size of Rankin-Selberg L-functions in the level aspect*, published in **Duke Mathematical Journal**, Vol. 131, No. 2, 291–350.