

Riccardo Brasca

CONTACT INFORMATION	Institut de Mathématiques de Jussieu - Paris Rive Gauche Université de Paris Bâtiment Sophie Germain 75205 Paris Cedex 13 France <i>Office:</i> 605 <i>Telephone:</i> (+33) 01-57-27-93-02 <i>E-mail:</i> riccardo.brasca@gmail.com <i>Website:</i> http://www.imj-prg.fr/~riccardo.brasca/
DATE OF BIRTH	26 October 1984
CITIZENSHIP	Italian
CURRENT POSITION	Institut de Mathématiques de Jussieu - Paris Rive Gauche , Paris <ul style="list-style-type: none">• Maître de conférences (associate professor) September 2013 - present
PAST POSITIONS	École normale supérieure de Lyon , Lyon <ul style="list-style-type: none">• Post-Doc October 2012 - August 2013 Max Planck Institute for Mathematics , Bonn <ul style="list-style-type: none">• Post-Doc April 2012 - September 2012 Institut Henri Poincaré , Paris <ul style="list-style-type: none">• Guest for the Galois trimester January 2010 - March 2010
RESEARCH INTERESTS	My research interests are in number theory and arithmetic geometry, in particular I am interested in the theory of p -adic modular forms. Keywords: p -adic modular forms, eigenvarieties, PEL-type Shimura varieties.
PUBLICATIONS AND PREPRINTS	Research papers <ul style="list-style-type: none">• p-adic powers of the Gauss–Manin connection for Siegel modular forms. Joint work with Giovanni Rosso. In preparation.• p-adic families of modular forms for Hodge type Shimura varieties. Joint work with Fabrizio Andreatta. In preparation.• Overconvergent Eichler–Shimura isomorphisms for certain unitary groups. Joint work with Daniel Barrera Salazar. In preparation.• Hida theory over some unitary Shimura varieties without ordinary locus. Joint work with Giovanni Rosso. arXiv:1711.05546. To appear in American Journal of Mathematics .• Eigenvarieties for non-cuspidal modular forms over certain PEL Shimura varieties. Joint work with Giovanni Rosso. arXiv:1605.05065. Submitted for publication.• An Introduction to Perfectoid Spaces. Joint work with Fabrizio Andreatta, Olivier Brinon, Bruno Chiarellotto, Nicola Mazzari, Simone Panozzo, and Marco Seveso. Panorama et Synthèses, no. 54, 2019.• Eigenvarieties for cuspforms over PEL type Shimura varieties with dense ordinary locus. Canadian Journal of Mathematics 68 (2016), no.6, 1227-1256. doi.org/10.4153/CJM-2015-052-2• Quaternionic modular forms of any weight. Int. J. Number Theory 10 (2014), no. 31, 31-53. doi:10.1142/S1793042113500796.

- p -adic modular forms of non-integral weight over Shimura curves. Compos. Math. 149 (2012), no. 1, 32–62. doi:10.1112/S0010437X12000449.
- Hodge-Tate sheaves. Not to be published, available in [my website](#).

Ph.D. thesis

- p -adic modular forms of non-integral weight over Shimura curves, 2012.

SCIENTIFIC
ACTIVITIES

- Member of the ANR project COLOSS **2020 - 2024**
- Member of the ANR project PerCoLaTor **2015 - 2019**
- Organizer of the seminar ‘Groupes Réductifs et Formes Automorphes’, Institute de Mathématiques de Jussieu, Paris **September 2014 - June 2016**
- Organizer of the conference ‘Solstice 2014’, Université Paris 7, Paris **June 2014**
- Referee for the Canadian Journal of Mathematics, International Journal of Number Theory, and Algebra & Number Theory
- Reviewer for MathSciNet
- Organizer of the workshop ‘Almost Xmas seminar’, Università degli Studi di Milano, Milan **December 2011**

SEMINARS AND
TALKS

Universidad de Santiago de Chile - Chile

- p -adic families of modular forms over Shimura varieties of Hodge type **January 2020**

Workshop ‘Jornada de Teoría de Números y Representaciones’

Fondazione Alessandro Volta, Como - Italy

- p -adic families of modular forms over Shimura varieties of Hodge type **May 2019**

Conference ‘ p -adic modular forms and p -adic L-functions’

Universitat de Barcelona - Spain

- Hida theory over some Shimura varieties without ordinary locus **April 2019**
- Fourth one-day workshop in Cardedeu: p -adic arithmetic geometry

Università di Padova - Italy

- Mini-course ‘Katz p -adic modular forms’
 - Seminar ‘Eigenvarieties for non-cuspidal Siegel modular forms’ **August 2017**
- Summer School on Modular Forms

Universitat de Barcelona - Spain

- Eigenvarieties for non-cuspidal Siegel modular forms **February 2017**
- Conference ‘ p -adic methods for Galois representations and modular forms’

University of Cambridge - UK

- Hida theory over some Shimura varieties without ordinary locus **May 2016**
- Number Theory Seminar

University of Amsterdam - The Netherlands

- Hida theory over some Shimura varieties without ordinary locus **April 2016**
- Arithmetic and Algebraic Geometry Seminar

McGill University - Montreal, Canada

- Eigenvarieties for non-cuspidal Siegel modular forms **March 2016**
- Québec-Vermont Number Theory Seminar

Université de Lille - France

- Variété de Hecke pour formes de Siegel non cuspidales **October 2015**
- Séminaire d’Arithmétique

University of Siena - Italy

- Famiglie p -adiche di forme modulari non cuspidali **September 2015**
- Conference of the UMI, the Italian Mathematical Society

University of Padova - Italy

- Almost mathematics **September 2015**
Summer school ‘Perfectoid spaces’
- ENS Lyon** - France
- Eigenvarieties for non-cuspidal Siegel modular forms **June 2015**
Conference ‘Journées arithmétiques à Lyon’
- KU Leuven** - Belgium
- About the notion of p -adic family of modular forms **April 2015**
Seminar ‘Number Theory and Algebraic Geometry’
- Johns Hopkins University** - Baltimore, USA
- Hida theory over some Shimura varieties without ordinary locus **March 2015**
Number Theory Seminar at Johns Hopkins University
- Columbia University** - New York City, USA
- Hida theory over some Shimura varieties without ordinary locus **December 2014**
Seminar ‘Automorphic Forms and Arithmetic’
- Institut de mathématiques de Jussieu - Paris Rive Gauche** - France
- Théorie de Hida pour certaines variétés de Shimura sans lieu ordinaire **November 2014**
Séminaire de théorie des nombres de l’IMJ-PRG
- Università degli Studi di Milano** - Italy
- Hida theory over Shimura varieties without ordinary locus **October 2014**
Conference ‘ p -adic methods in number theory’
- IISER** - Pune, India
- Families of overconvergent modular forms over Shimura varieties without ordinary locus **June 2014**
Conference ‘ p -adic aspects of modular forms’
- École Normale Supérieure** - Paris, France
- Familles des formes modulaires p -adiques et variétés de Hecke **January 2014**
Séminaire MathJeunes
- Università degli Studi di Milano** - Italy
- About a geometric construction of eigenvarieties **June 2013**
for Shimura variety of PEL type,
Summer Number Theory in Milan
- Université de Caen Basse-Normandie** - France
- Variétés de Hecke pour formes modulaires de type PEL, **January 2013**
Séminaire de Théorie des Nombres de Caen
- Université de Paris 13** - France
- Hecke varieties for Shimura varieties with ordinary locus, **January 2013**
Conférence ‘Variétés de Shimura et Formes modulaires p -adiques’
- University of Zürich** - Switzerland
- Strict \mathcal{O} -modules and p -adic modular forms, **December 2012**
Oberseminar
- Institut de Mathématiques de Bordeaux** - France
- Strict \mathcal{O} -modules and p -adic modular forms, **November 2012**
Séminaire de Théorie des Nombres
- Max Planck Institute for Mathematics** - Bonn, Germany
- p -adic modular forms of non-integral weight over Shimura curves, **May 2012**
Oberseminar
- Centro di Ricerca Matematica Ennio De Giorgi** - Pisa, Italy
- Forme modulari p -adiche di peso non intero, **May 2012**
Workshop in Algebraic Geometry and related topics
- King’s College** - London, UK
- p -adic modular forms of non-integral weight over Shimura curves, **May 2012**
London Number Theory Seminar
- Université de Cergy-Pontoise** - France
- p -adic modular forms, **November 2011**
Ph.D. Students seminar
- Università degli Studi di Milano** - Italy

- Perfectoid fields and algebras, **December 2011**
Seminar about Peter Scholze's theory of perfectoid spaces
- p -adic modular forms of non-integral weight, **December 2011**
Christmas Seminar
- p -adic modular forms of non-integral weight over Shimura curves, **June 2010**
Seminars in Arithmetic Geometry, Motives and Number Theory

EDUCATION

Università degli Studi di Milano, Milan

- Ph.D. in Mathematics **January 2009 - March 2012**
 - Thesis title: p -adic modular forms of non-integral weight over Shimura curves
 - Supervisor: Prof. Fabrizio Andreatta

Università degli Studi di Milano, Milan

- M.Sc. in Mathematics **September 2006 - July 2008**
 - Graduation Date: 21 July 2008
 - Final grade: 110/110 *cum Laude*
 - Thesis title: Galois cohomology via almost-étale extensions
 - Supervisor: Prof. Fabrizio Andreatta
- B.Sc. in Mathematics **September 2003 - July 2006**
 - Graduation Date: 19 July 2006
 - Final grade: 110/110 *cum Laude*
 - Thesis title: Spazi di Banach e proprietà di Radon-Nikodym
 - Supervisor: Prof. Clemente Zanco

TEACHING EXPERIENCE

Université Paris 7, Paris

- Teaching as maître de conférences, **September 2013 - present**

Università degli Studi di Milano, Milan

- Teaching assistant, Calculus III course, **November 2008 - February 2009**
Department of Physics
- Teaching assistant, Algebra II course, **March 2011 - July 2011**
Department of Mathematics