

HU Yong 胡 勇

Université de Caen, Campus 2
Laboratoire de Mathématiques Nicolas Oresme
Bât. Sciences 3, S3 223
14032, Caen Cedex
France
Page web: <http://www.math.unicaen.fr/~hu>

Telephone: +33 2 31 56 73 66
Fax: +33 2 31 56 73 20
Email: yong.hu@unicaen.fr

Personal Information

Surname, First name: HU, Yong
Date and Place of Birth: 05/05/1983, Anhui, P. R. China
Nationality: Chinese

Current Position (since 09/2013)

Maître de conférences (Associate Professor), Université de Caen, Caen, France

Education

09/2012–08/2013 Post-doctor, Universität Duisburg-Essen, Essen, Germany
Supervisor: Prof. Marc Levine
09/2008–08/2012 PhD, Université Paris-Sud, Orsay, France
Title of thesis: *Approximation faible et principe local-global pour certaines variétés rationnellement connexes*
(Weak approximation and local-global principle for certain rationally connected varieties)
Defense committee: Antoine Chambert-Loir, Jean-Louis Colliot-Thélène (Advisor), Olivier Debarre, Bruno Kahn, Yves Laszlo, Qing Liu
Date of defense: 04/04/2012
09/2006–07/2008 Master Sc. (“Erasmus ALGANT” Master programme)
Université Paris-Sud, Orsay, France and Universiteit Leiden, Leiden, The Netherlands
09/2001–07/2006 Bachelor and 1st year of Master
Tsinghua University, Beijing, China

Publications

1. (with Sunghan BAE and Linsheng YIN) *Artin L-functions and modular forms associated to quasi-cyclotomic fields*, Acta Arithmetica, 143 (2010), 59–80.
2. *Weak approximation over function fields of curves over large or finite fields*, Math. Ann. 348 (2010) No. 2, 357–377.
3. *Local-global principle for quadratic forms over fraction fields of two-dimensional henselian domains*, Annales de l’Institut Fourier, 62 (2012) No. 6, 2131–2143.
4. *Division algebras and quadratic forms over fraction fields of two-dimensional henselian domains*, Algebra Number Theory, 7 (2013) No. 8, 1919–1952.
5. *Hasse principle for simply connected groups over function fields of surfaces*, Journal of Ramanujan Mathematical Society, 29 (2014) No. 2, 155–199.

6. *The Pythagoras number and the u -invariant of Laurent series fields in several variables*, Journal of Algebra, 426 (2015), 243–258.

Preprints

1. *A cohomological Hasse principle over two-dimensional local rings*, submitted, available at [arXiv:1401.7782v3](https://arxiv.org/abs/1401.7782v3)

Teaching Experience

Spring 2016	<i>Galois theory and finite fields: Problem session</i> (M1, Maths)
Fall 2015	<i>Maths and applications: Problem session</i> (L2, Math-Info)
Spring 2014, 2015, 2016	<i>Algebra and applications: Problem session</i> (L2, Informatics)
Spring 2014, 2015, 2016	<i>Maths and applications</i> (L1, Math-Info)
Fall 2013, 2014, 2015	<i>Probability: Problem session</i> (L1, Math-Info)
Fall 2013, 2014, 2015	<i>General mathematics</i> (L1, Biology)
Fall 2013, 2014	<i>Discrete mathematics: Problem session</i> (L1, Informatics)
	Université de Caen, Caen, France
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Spring 2012	<i>Linear algebra: Problem session</i> (L1, Chemistry)
Fall 2011	<i>Applied differential calculus: Problem session</i> (L2, Physics)
	Université Paris-Sud, Orsay, France
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07/2014	<i>Topics on quadratic forms (mini-course)</i> (M1-M2, Maths)
	Yau Mathematical Sciences Center
Fall 2005, Spring 2006	<i>Advanced Calculus I, II: Problem session</i> (L1, Maths)
	Tsinghua University, Beijing, China

Visits (≥ 1 month stay)

- 09/07/2014–08/08/2014 Mathematical Sciences Center, Tsinghua University, Beijing, China
- 01/08/2013–31/08/2013 Max Planck Institute for Mathematics, Bonn, Germany

Organisation of Conferences/Seminars

- 24/06–26/06/2015 (with Jérôme Poineau) XXVI-th Rencontres arithmétiques de Caen
Université de Caen, Caen, France
Page web: <http://www.math.unicaen.fr/~rencarit/2015/>
- 09/2011–06/2012 (with Chun-Hui WANG) Séminaire Mathjeunes
Université Paris-Sud, Orsay, France
Page web: <http://webusers.imj-prg.fr/~jie.lin/sm/Acceuil.html>

Other Professional Activities

- Reviewer of *Mathematical Reviews* and *Zentralblatt Math*
- Have been referee for *Algebra Number Theory*, *Mathematische Annalen*, *International Mathematics Research Notices*, etc.

Conference/Seminar Talks

- 03/10/2015 *A cohomological Hasse principle over semi-global fields*
Workshop: Local-Global Principles and Their Obstructions, University of Pennsylvania, Philadelphia, USA
- 25/08/2015 *The Pythagoras number of Laurent series fields in several variables*
5th East Asia Number Theory Conference, Chuncheon, Korea
- 11/08/2015 *Hasse principle for simply connected groups over function fields of surfaces*
Number theory seminar, Shanghai Center for Mathematical Sciences, Shanghai, China
- 05/08/2015 *Hasse principle for simply connected groups over function fields of surfaces*
Number theory seminar, University of Science and Technology of China, Hefei, China
- 27/07/2015 *Cyclicity of central simple algebras over fraction fields of two-dimensional local rings*
Number theory seminar, Morningside Center of Maths., Beijing, China
- 22/07/2014 *Sums of squares and the Pythagoras number: Generalities,*
25/07/2014 *The Pythagoras number of Laurent series fields in three variables,*
27/07/2014 *Galois cohomology of fraction fields of two-dimensional local rings*
Workshop on Mathematical Physics and Number Theory, MSC Tsinghua University, Beijing, China
- 25/04/2014 *Le nombre de Pythagore d'un corps de séries formelles en trois variables*
Séminaire de Théorie des Nombres, LMNO, Caen, France
- 14/03/2014 *Un principe local-global cohomologique sur les anneaux locaux de dimension deux*
Séminaire Variétés Rationnelles, ENS, Paris, France
- 22/07/2013 *Arithmetic of quadratic forms over two-dimensional local rings*
Summer workshop on arithmetic geometry, MSC Tsinghua University, Beijing, China
- 18/07/2013 *Arithmetic of quadratic forms over two-dimensional local rings*
Oberseminar, Universität Duisburg-Essen, Essen, Germany
- 25/04/2013 *Quelques problèmes locaux-globaux liés aux formes quadratiques*
École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland
- 15/02/2013 *Some local-global problems related to quadratic forms*
Friday Seminar, Universiteit Antwerpen, Antwerp, Belgium
- 29/10/2012 *Formes quadratiques sur les corps des fractions des anneaux locaux de dimension 2*
Colloque "Points entiers, points rationnels", Institut Fourier, Grenoble, France
- 19/10/2012 *Quadratic forms over fraction fields of two-dimensional local rings*
Oberwolfach Seminar "Algebraic groups and patching"
Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany
- 26/09/2012 *Hasse principle for torsors over p -adic functions fields*
Conférence "Rational and integral points, with special reference to homogeneous spaces"
Beijing Conference Center, Beijing, China

- 14/06/2012 *Principe de Hasse pour les toiseurs sur les corps de fonctions de courbes p-adiques*
Colloque Jeunes Chercheurs, ENS de Lyon, Lyon, France
- 24/05/2012 *Hasse principles over function fields of surfaces*
Mini-course in Lens, Lens, France
- 13/04/2012 *Principe de Hasse sur les corps de fonctions de surfaces*
Séminaire Variétés Rationnelles, ENS, Paris, France
- 19/05/2011 *Quadratic forms over fraction fields of two-dimensional henselian domains*
Conference “Ramification in Algebra and Geometry at Emory”, Emory University, Atlanta, USA
- 01/07/2010 *Weak approximation for rationally connected varieties over function fields*
Ecole d’été “Aspects arithmétiques des courbes rationnelles”, Grenoble, France
- 07/06/2010 *Weak approximation for rationally connected varieties over function fields*
Géométrie Algébrique en Liberté XVIII, Coimbra, Portugal
- 06/11/2009 *Approximation faible sur les corps de fonctions des courbes sur les corps fertiles et les corps finis*
Séminaire Variétés Rationnelles, E.N.S, Paris, France

Conferences attended

- 15–19 June 2015 *Linear algebraic groups, vector bundle classification and division rings*
Mini-course in Lens, Lens, France
- 3–7 March 2014 *Winter school “On Lang and Vojta’s conjectures”*
Centre International de Rencontres Mathématiques, Marseille, France
- 10–14 June 2013 *Arithmetic algebraic geometry*
Freie Universität, Berlin, Germany
- 07 June 2013 *Séminaire Variétés Rationnelles: Journée spéciale à l’occasion du départ à la retraite de Jean-Louis Colliot-Thélène*
Jussieu, Paris, France
- 19–20 January 2013 *Workshop “Riemann-Roch for Deligne-Mumford stacks”*
Institut für Experimentelle Mathematik, Essen, Germany
- 9–17 June 2011 *Ecole d’été “Motives and Milnor Conjectures”*
Institut de Mathématiques de Jussieu, Paris, France
- 14–18 March 2011 *Spring school on higher class field theory*
Universität de Mainz, Mainz, Germany
- 17–21 January 2011 *Workshop on deformation theory, patching, quadratic forms, and the Brauer group*
American Institute of Math., Palo Alto, USA
- 17–21 May 2010 *Derived categories, holomorphic symplectic geometry, birational geometry, deformation theory*
Institut Henri Poincaré, Paris, France

- 26–30 April 2010 *Cohomology of algebraic varieties, Hodge theory, algebraic cycles, motives*
 Institut Henri Poincaré, Paris, France
- 19–28 August 2009 *Arithmetic geometry and moduli spaces in algebraic geometry*
 Zhejiang University, Hangzhou, China
- 15–26 June 2009 *Ecole doctorale “Géométrie diophantine”*
 Université de Rennes 1, Rennes, France
- 1–5 June 2009 *Spaces of curves and their interactions with Diophantine geometry*
 Columbia University, New York, USA
- January 2009 *Aspects de la géométrie algébrique: la postérité mathématique d’Alexander Grothendieck*
 IHES, Bures sur Yvette, France
- May 2008 *Etats de la Recherche de la SMF: “Variétés rationnellement connexes: aspects géométriques et arithmétiques”*
 Université Louis Pasteur, Strasbourg, France
- August 2005 *International conference and summer school on arithmetic geometry and automorphic forms*
 Centre Sino-Français de Math. de Paris-Sud et Tsinghua, et Institut de Math. de Nankai, Beijing and Tianjin, China