

Curriculum Vitae

Robin Guilbot

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Current position

Teacher at the Toulouse School of Economics (TSE), since September 2018.

Previous positions

- 2015-18 Post-doctorate at the Institute of Mathematics of the University of Warsaw with fellowship of the project “Algebraic Geometry : Varieties and Structures”.
- 2013-15 Post-doctorate at IMPA, Rio de Janeiro, with fellowship “Pós-Doutorado Junior” from CNPq.

Education

- 2012 Ph.D from Université de Toulouse
Advisor : Marc Perret
Title : *Quelques aspects combinatoires et arithmétiques des variétés toriques complètes*
- 2008 Master 2 Recherches “Mathématiques Fondamentales”
- 2007 Mathematics teacher degree (Agrégation de Mathématiques).

Recomendation

The following researchers accepted to write recommendation letters for me :

- Jaroslaw Wisniewski : Professor at the Institute of Mathematics, Warsaw, Poland.
- Laurent Manivel : Directeur de Recherches at CNRS, France.

Papers

- “Families of Calabi-Yau hypersurfaces in \mathbb{Q} -Fano toric varieties”, with M. Artebani and P. Comparin, Journal de Mathématiques Pures et Appliquées Vol. 106(2), 2016, [pp.319-341](#).
- “Quasismoothness of hypersurfaces in toric varieties”, with M. Artebani and P. Comparin, Proceedings of the AMS Vol. 147, 2019, [\(pp.4565-4579\)](#).

- “Low degree hypersurfaces of complete toric varieties defined over C_1 fields have a rational point”, ([Latest version](#)).
- “On embedded Mirror Symmetry”, in preparation.

Other research activities

Invited research talks

- June 2021 *Sur la construction de variétés algébriques par déformation de réunions de strates toriques*, Séminaire de Géométrie complexe, Toulouse.
- June 2019 *Embedded Mirror Symmetry : Beyond complete intersections*, IMPANGA - IMPAN, Warsaw.
- Nov. 2017 *Embedded Mirror Symmetry for non complete intersections*, Research group meeting - Imperial College, London.
- Mar. 2017 *Quasismoothness of hypersurfaces in toric varieties* , Geometry and Topology of Singularities seminar - IMPAN, Warsaw.
- Fev. 2017 *Quasismoothness of hypersurfaces in toric varieties* , IMPANGA - IMPAN, Warsaw.
- Jan. 2017 *Sur l'unification des constructions toriques miroir*,
Séminaire d'Algèbre et Géométries - Institut Fourier, Grenoble.
Séminaire de Géométrie Algébrique - Institut Montpellierain Alexander Grothendieck, Montpellier.
- Nov. 2016 *Unifying toric mirror constructions*, Algebraic Geometry Seminar at UW - MIMUW, Warsaw.
- Dec. 2015 *Complete non projective toric varieties*, Algebraic Geometry Seminar at UW - MIMUW, Warsaw.
- Jul. 2015 *Towards a unification of toric mirror constructions*, Seminário de Geometria Algébrica (UFF) - Niterói.
- June 2015 *On the unification of toric mirror constructions* (10 min.), ELGA II - Cabo Frio.
- May 2015 *Non projective complete toric varieties*, Seminario de Geometría Algebraica - Concepción.
- Nov.-Dec. 2014 *Variétés toriques complètes non projectives*,
Séminaire d'Algèbre - Institut Camille Jordan, Lyon 1.
Séminaire d'Algèbre et Géométries - Institut Fourier, Grenoble.
- Nov. 2014 *A transversal approach to the C_1 conjecture*, Rencontres du Groupe de Recherche GAGC (Géométrie Algébrique et Géométrie Complexe) - Centre International de Rencontres Mathématiques (CIRM), Luminy
- Sept.-Oct. 2014 *Une approche transversale de la conjecture C_1* ,
Séminaire de Combinatoire et Théorie des Nombres - Institut Camille Jordan, Lyon 1.
Séminaire de Géométrie Algébrique - Institut de Recherche MATHématique de Rennes.
Séminaire de Théorie des Nombres - Laboratoire de Mathématiques Nicolas Oresme, Caen.
Séminaire de Théorie des Nombres - Institut de Mathématiques de Jussieu, Paris 6.
Séminaire de Géométrie Algébrique, Champs et Homotopie - Institut de Mathématiques de Toulouse.

- Jul. 2014 *Toric Minimal Model Program and application to arithmetics over quasi algebraically closed fields*, XXIII Escola de Álgebra - Maringá, Brésil.
- June 2014 *A toric approach to the $C1$ conjecture*, XXVèmes Rencontres Arithmétiques de Caen - Ile de Tatihou.
- Apr. 2014 *Low degree hypersurfaces of projective toric varieties defined over a $C1$ field have a rational point*, Seminário salomonico - Universidade Federal Fluminense, Niterói, Brésil.
- Sept. 2013 *What is a “low degree” hypersurface in a complete toric variety ?* Welcome talk - Instituto Nacional de Matemática Pura e Aplicada (IMPA), Rio de Janeiro.
- Jul. 2013 *Low degree hypersurfaces of complete toric varieties defined over $C1$ fields have a rational point*, 28èmes Journées Arithmétiques - Grenoble.
- Apr. 2013 *Les hypersurfaces de petit degré d’une variété torique complète ont un point rationnel sur les corps quasi-algébriquement clos*, Séminaire d’Algèbre et Théorie des Nombres - Laboratoire de Mathématiques de Besançon.
- May-June 2012 *Arithmétique dans des variétés toriques sur les corps $C1$* , Colloque Jeunes Chercheurs en Théorie des Nombres - ENS Lyon.
Séminaire de Théorie des Nombres - Institut Fourier, Grenoble.
Séminaire d’Arithmétique - Laboratoire Paul Painlevé, Lille.
- Mar. 2012 *Un critère d’existence de points rationnels pour un diviseur d’une variété torique sur les corps $C1$* , Séminaire d’Arithmétique et Théorie de l’Information - Institut de Mathématiques de Luminy

Other events attended

- Oct. 2017 Workshop “Mirror Symmetry and Fano Manifolds” - London.
- Sept. 2017 Workshop “Interactions with Lattice Polytopes” - Magdeburg.
- Sept. 2017 September Algebraic Geometry School “Binomial ideals” - Łukęcin.
- July 2017 School on Deformation Theory - Torino.
- Jan. 2017 Rencontres du Groupe de Recherche GAGC - CIRM, Luminy, France.
- Oct 2016 Convexity in Algebraic Geometry - Toronto.
- June 2016 New methods in birational geometry (School + conference)- Toulouse.
- Apr.-June 2016 Simons Semester in Banach Center “mini PAGES” (from Introductory school to Closing conference) - Warsaw and Będlewo.
- Jan. 2016 CIMPA school “Toric Methods in Geometry, Arithmetic and Dynamics” - Santiago de Chile.
- Sept. 2015 September Algebraic Geometry School “Cox Rings and Mori Dream Spaces” - Łukęcin.
- Apr.-June 2015 Thematic program on Algebraic Geometry (4 encounters) - Rio de Janeiro.
- June 2014 Géométrie Algébrique En Liberté (GAEL) XXII - Trieste.
- Feb. 2014 Liberdade Em Geometria ALgébrica (LEGAL) 2014 - Teresópolis.

- Jul. 2013 28èmes Journées Arithmétiques - Grenoble.
 Jan. 2013 Rencontres du Groupe de Recherche GAGC - CIRM, Luminy, France.
 June 2012 Géométrie Algébrique En Liberté (GAEL) XX - Grenoble.
 Mar. 2012 Rencontres du Groupe de Recherche GAGC - CIRM, Luminy, France.
 Jul. 2009 26èmes Journées Arithmétiques - Université de Saint-Étienne.

Seminar organization

During the year 2017-18 I was the organizer of the Junior Algebraic Geometry Seminar at Warsaw University.

Teaching

The following table summarizes my teachings in French at Toulouse University (three campuses) plus a little bit in English at Warsaw University (here L=Licence, M=Master) :

Years	Level	Matter
2008-09	(L2)	Analysis IV
2008-11	(L1)	Computer aided Mathematics
2009-12	(M2)	Preparation to "Agrégation" (Maths teacher degree)
2011-12	(L1)	Mathematic tools for Physics
2011-12	(L1)	Modelisation for Sciences
2011-12	(L3)	History of Mathematics
2011-12	(M1)	Preparation to CAPES (other Maths teacher degree)
2012-13	(L1)	Mathematic Methodology
2012-13	(L1)	Statistics for Psychology
2012-13	(L3)	Mathematics applied to Computer Science
2015-18	(L1)	Linear Algebra (in English)
2018-19	(L1)	Descriptive statistics
2018-21	(L1)	Mathematics 1
2018-21	(L1)	Mathematics 2
2018-21	(L2)	Mathematics 3
2018-21	(L2)	Mathematics 4
2020-21	(L2)	Probability
2020-21	(L3)	Mathematics for L3

Languages

- French : mother tongue.
 English : read, spoken, written (good).
 Portuguese : read (good), spoken, written (not so bad).
 Spanish : read, spoken, written (basic).
 Polish : beginner.
 Maple : research and teaching (very good).
 Sage, Magma, PALP, Macaulay2 : basic.