

Curriculum Vitae

Name : Cecília Salgado Guimarães da Silva

Birth date and place of birth : 27th of February 1982, Rio de Janeiro, Brazil

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Academic history

2009 – 2011 : Postdoc at Universiteit Leiden

2005 – 2009 : PhD in Mathematics at Université Paris VII under the supervision of M. Hindry

2003 – 2005 : Master in Pure Mathematics at IMPA – Rio de Janeiro – Brazil

2000 – 2002 : Undergraduate studies in Mathematics at the Federal University of Rio de Janeiro (UFRJ)

Research field

Arithmetic Geometry, Number Theory.

Publications

- 1) Base points, bad fibres and k -minimal models of rational elliptic surfaces (in preparation)
- 2) Density of rational points on del Pezzo surfaces of degree one (in preparation jointly with Ronald van Luijk)
- 3) Density of rational points on del Pezzo surfaces of degree two (in preparation jointly with Damiano Testa and Tony Várilly-Alvarado)
- 4) On the rank of the fibres of elliptic K3 surfaces (in preparation)
- 5) On the rank of the fibres of rational elliptic surfaces (submitted)
- 6) Constructions of linear pencils of cubics with Mordell-Weil rank five – *Comm. Math. St. Pauli* 58, No. 2, 2009
- 7) Rank of elliptic surfaces and base changes – *C.R. de l'Académie de Sciences Math.* 347, 2009
- 8) Rang des surfaces elliptiques : théorèmes de comparaison – *thèse de doctorat*, 2009

Scholarships and positions

March 2010 : Visitor at Hausdorff Institute – Bonn (Junior trimester in Algebra and Number

Theory)

2009 – 2010 : Postdoc – Universiteit Leiden

August 2009 : Visitor at IMPA

2008 – 2009 : Attachée temporaire d'enseignement et recherche (ATER) – Univ. Paris VII

April 2009 : Visitor at Hausdorff Institute – Bonn (Trimester in Diophantine equations)

2005 – 2008 : CAPES (Brazil) Scholarship for PhD at Université Paris VII

January 2005 – July 2005 : IMPA

2003 – 2004 : Master (IMPA)

2001 – 2002 : Scientific Initiation : Diophantine Equations

Selected mathematical activities

October 2010 : Arithmetic of Surfaces (Lorentz Center) – Leiden

September 2010 : Approximation diophantienne et transcendance – Luminy

July 2010 : Rational Points 3 (Schloss Thurnau)

March 2010 : Algebra and Number Theory at Hausdorff Institute – Bonn

February 2010 : Arithmetic Geometry – Essen

November 2009 : DIAMANT Symposium – Lunteren

November 2009 : Invited as a visitor to Poznan

August 2009 : Latin American Algebra Colloquium – São Pedro

July 2009 : Journées Arithmétiques – Saint Etienne

May 2009 : Intercity Number Theory Seminar – Groningen

April 2009 : Diophantine Trimester – Hausdorff Institute – Bonn

November 2008 : Arithmetic of K3 surfaces (BIRS) – Banff

August 2008 : XX Brazilian School of Algebra – IMPA

October 2007 : Développements récents en approximation diophantienne – Luminy

May 2007 : London – Paris Number Theory Seminar – Imperial College

November 2006 and 2007 : London – Paris Number Theory Seminar (Institut Henri Poincaré)
– Paris

May 2006 : Spring School : Abelian Varieties – Utrecht

September 2006 : Approximation diophantienne et nombres transcendants – Luminy

July 2005 and 2003 : Brazilian Colloquium of Mathematics (IMPA) – Rio de Janeiro

August 2002 : XVII Brazilian School of Algebra – Cabo Frio

Selected talks

1. Zariski density of rational points on del Pezzo surfaces of small degree (September 2010 at IMPA)
2. On the rank of the fibres of rational elliptic surfaces (2009 : Poznan, Latin American Algebra Colloquium, Groningen, Journées Arithmétiques – St. Etienne, Caen)

3. Comparing the rank of the generic and the special fibres on rational elliptic surfaces (2009 : Bonn, Mainz, Copenhagen)
4. Rank of elliptic surfaces and base change (August 2008 : Arithmetic Day – Brazilian School of Algebra at IMPA)
5. Surfaces elliptiques, Réseaux de Mordell-Weil et mauvaises fibres (Student number theory seminar – Paris).
6. Augmentation du rang des surfaces elliptiques via des changements de base (September 2007 : Groupe d'études et Problèmes diophantiens – Paris)
7. Surfaces elliptiques et changements de base intéressants (March 2007 : Student number theory seminar – Paris)
8. Height theory : the conjectures by Lang and Lehmer (September 2004 – IMPA)

Teaching

- 2010 : Commutative algebra – Master (Leiden)
 2009 : Elliptic curves (exercise section) – MasterMath (Vrije Universiteit – Amsterdam)
 2008 – 2009 : Mathématiques élémentaires (teaching assistant) – (Paris VII)
 2007 : Formes quadratiques (teaching assistant) – (Paris VI)
 2001 – 2002 : Algebra 1 and 2 (teaching assistant) – (UFRJ – Rio de Janeiro)

Supervision of students

2009 – 2010 : Valerio Pastro – Master (Leiden). Title of dissertation : Constructions of rational elliptic surfaces of rank four.

2010 : Anco Moritz – Bachelor (Leiden). Title : Heights and dynamical systems.

Organization

1. Arithmetic of surfaces – Lorentz Center – October 2010 (co-organized with Ronald van Luijk).
2. Workshop on arithmetic aspects of elliptic surfaces – Hausdorff Institute – March 2010 (co-organized with Matthias Schuett).

Languages

Fluent : Portuguese, French and English

Intermediate : Spanish

Beginner : Dutch and German