Roi Docampo Álvarez

Universidade Federal Fluminense ▪ Instituto de Matemática e Estatística ▪ Niterói, Rio de Janeiro, Brasil
`roi@mat.uff.br` ▪ +55 (21) 2629–2111 ▪ `http://roidocampo.github.io`

BIOGRAPHICAL

Born May 22, 1978, in Ourense (Spain).

EMPLOYMENT

Bolsista Ciência sem Fronteiras (Post-doc), Univ. Federal Fluminense, February 2013 − present

Wylie Assistant Professor/Lecturer (Post-doc), University of Utah, July 2009 − June 2012

Research/Teaching Assistant (Student), Univ. of Illinois at Chicago, August 2003 − July 2009

EDUCATION

University of Illinois at Chicago, Ph. D. in Mathematics, 2009
Thesis: *Arcs on determinantal varieties.* Advisor: Lawrence Ein

Universidade de Santiago de Compostela, Diploma de Estudios Avanzados, 2003

Universidade de Santiago de Compostela, Licenciatura en Matemáticas, 2001

RESEARCH INTERESTS

Algebraic geometry and valuation theory: birational geometry, multiplier ideals, arc spaces, jet schemes, motivic integration, Riemann-Zariski spaces, Berkovich spaces, determinantal varieties, spherical varieties.

PUBLICATIONS

[1] Roi Docampo, *Arcs on determinantal varieties*, Trans. Amer. Math. Soc. **365** (2013), no. 5, 2241–2269. `arXiv:1011.1930`.

[2] Tommaso de Fernex and Roi Docampo, *Jacobian discrepancies and rational singularities*, J. Eur. Math. Soc. **16** (2014), no. 1, 165–199. `arXiv:1106.2172`.

PREPRINTS

[3] Tommaso de Fernex, Roi Docampo, Shunsuke Takagi, and Kevin Tucker, *Comparing multiplier ideals to test ideals on numerically Q-Gorenstein varieties.* `arXiv:1401.7946`.

[4] Tommaso de Fernex and Roi Docampo, *Terminal valuations and the Nash problem.* `arXiv:1404.0762`.

INVITED TALKS

Discrepancies on non-Q-Gorenstein varieties, 02/25/2014, Univ. of Illinois at Chicago

Schubert varieties, arc spaces, and LCT's, 02/17/2014, LEGAL 2014, Teresópolis

Jacobian discrepancies and rational singularities, 10/31/2013, Univ. Federal do Rio de Janeiro

Jacobian discrepancies and rational singularities, 09/18/2013, 2° Congr. Jóvenes Invest., Seville

Jacobian discrepancies and rational singularities, 08/30/2013, COLGA, Univ. Federal Fluminense

Inversion of adjunction, arc spaces and Jacobian discrepancies, 08/02/2013, NCTS/TPE, Taiwan

Jacobian discrepancies and rational singularities, 07/29/2013, NCTS/TPE, Taiwan

Jacobian discrepancies and rational singularities, 07/04/2013, 14th ALGA Meeting, Teresópolis

Jacobian discrepancies and rational singularities, 04/17/2013, IMPA

Arcs on determinantal varieties II — Motivic integration, 04/02/2013, Univ. Federal Fluminense

Arcs on determinantal varieties, 03/26/2013, Universidade Federal Fluminense

Singularities in birational geometry and multiplier ideals, 03/08/2013, University of Oklahoma

Jacobian discrepancies and rational singularities, 04/14/2012, WAGS, University of Washington

Discrepancies, 03/14/2012, University of Illinois at Chicago

Jacobian discrepancies and rational singularities, 02/21/2012, Ohio State University

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INVITED TALKS (CONT.)	*Discrepancies and Nash blowing-ups*, 02/08/2012, Purdue University
	Jacobian discrepancies and rational singularities, 02/08/2012, Purdue University
	Jacobian discrepancies and rational singularities, 10/23/2011, AMS Special Session, Utah
	Arcs on determinantal varieties, 04/15/2011, Brown University
	Geometry of arcs under birational maps, 11/07/2010, AMS Special Session, Notre Dame
	Arcs on determinantal varieties, 09/18/2009, University of Notre Dame
	Arcs on determinantal varieties, 09/08/2009, University of Utah
	Arcs on determinantal varieties, 12/10/2008, University of Michigan
	Jet schemes, contact loci and singularities, 03/03/2005, University of Valladolid (Spain)
LECTURE SERIES	*Course on valuation theory and Berkovich spaces*, 01/2011 − 05/2011, University of Utah
EXPOSITORY TALKS	*Arakelov Geometry: Green Currents*, 05/2013, IMPA
	Dynamics of automorphisms of compact complex surfaces, 05/2013, IMPA
	The cohomology of p-adic symmetric spaces, 02/2011, University of Utah
	Introduction to Berkovich spaces, 04/2010, University of Utah
	Introduction to G.I.T., 11/2008, University of Illinois at Chicago
	Toric varieties, 01/2008 − 05/2008, University of Illinois at Chicago
	Complete conics, 11/2007, University of Illinois at Chicago
	The proof of resolution of singularities, 09/2006 − 12/2007, University of Illinois at Chicago
	Intersection theory, 08/2005 − 01/2006, University of Illinois at Chicago
	Tropical algebraic geometry and Bernstein's theorem, 04/2005, University of Illinois at Chicago
	Positivity in algebraic geometry, 09/2004 − 03/2005, University of Illinois at Chicago
	D-Modules and derived categories, 03/2003 − 05/2003, University of Illinois at Chicago
GRANTS AND AWARDS	Bolsista Ciência sem Fronteiras (Atração Jovens Talentos), 02/2013 − 11/2015, CNPq, Brasil
	Fulbright Fellowship, 08/2003 − 05/2005, Spanish-American Fulbright Commission
	Master's Thesis Travel Grant, 02/2003 − 05/2003, Caixa Galicia Foundation
	Scholarship for the Realization of Graduate Studies, 10/2001 − 08/2003, Xunta de Galicia
	Premio Nacional de Fin de Carrera de Educación Universitaria (Mención Especial) (National Award of University Education, Honorable Mention) 2001 − Granted by the Ministry of Education and Culture of Spain
	Undergraduate Research Scholarship, 2000 − 2001, Ministry of Education and Culture of Spain
SERVICE	Referee for *Communications in Algebra, Journal of Algebra, Journal of Algebraic Geometry,* and *Pacific Journal of Mathematics.*
	Co-organizer of the *School on Birational Geometry and Moduli Spaces — VIGRE Mini-course,* June 2010, University of Utah
	Co-organizer of the Algebraic Geometry Seminar at the University of Utah.

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TEACHING EXPERIENCE

Foundations of Analysis II, Lecturer, Spring 2012, University of Utah

Foundations of Analysis II, Lecturer, Fall 2011, University of Utah

Special Topics in Algebraic Geometry: Course on Valuation Theory and Berkovich Spaces, Lecturer, Spring 2011, University of Utah

Partial Differential Equations for Engineering Students, Lecturer, Spring 2011, University of Utah

Introduction to Complex Variables, Lecturer, Fall 2010, University of Utah

Calculus II, Lecturer, Spring 2010, University of Utah

Calculus I, Lecturer, Fall 2009, University of Utah

Calculus III Lab (Maple), Teaching Assistant, Fall 2008, University of Illinois at Chicago

Differential Equations, Teaching Assistant, Summer 2008, University of Illinois at Chicago

Calculus III, TA Lecturer, Spring 2008, University of Illinois at Chicago

Emerging Scholars Workshop for Calculus I, Instructor, Spring 2007, University of Illinois at Chicago

Precalculus, Teaching Assistant, Spring 2006, University of Illinois at Chicago

Precalculus, Teaching Assistant, Fall 2005, University of Illinois at Chicago

CONFERENCES ATTENDED

Liberdade em Geometria Algébrica, LEGAL 2014, 02/2014, Teresópolis, Brasil

New Aspects on Singularity Theory, 09/2013, ICMAT, Madrid

2° Congreso de Jóvenes Investigadores, RSME, 09/2013, University of Seville

Algebra and Geometry and Topology of Singularities, Luengo 60th, 09/2013, Miraflores de la Sierra

13th ALGA Meeting, 06/2013, Teresópolis, Brasil

YMIS 13: Seventh Meeting for mathematicians in Segovia, 02/2013, University of Valladolid

Western Algebraic Geometry Symposium, 04/2012, University of Washington

Singularities in Com. Algebra and Alg. Geometry, AMS Sectional Meeting, 03/2012, Univ. of Kansas

Special Session on Algebraic Geometry, AMS Sectional Meeting, 10/2011, University of Utah

Western Algebraic Geometry Symposium, 10/2011, Colorado State University

AIM Workshop: Relating test ideals and multiplier ideals, 08/2011, AIM

2nd International Conference and Workshop on Valuation Theory, 07/2011, Segovia/El Escorial

Western Algebraic Geometry Symposium, 04/2011, Stanford University

Singularities in Algebraic Geometry, AMS Sectional Meeting, 11/2010, Univ. of Notre Dame

Summer School "Berkovich spaces", 06/2010, Institut de Mathématiques de Jussieu, Paris

School on Birational Geometry and Moduli Spaces — VIGRE Mini-course, 06/2010, Univ. of Utah

Western Algebraic Geometry Symposium, 05/2010, University of British Columbia

Combinatorial, Enumerative and Toric Geometry, 03/2009, MSRI

Modern Moduli Theory, 02/2009, MSRI

Classical Algebraic Geometry Today, 01/2009, MSRI

Michigan-Ohio State-UIC Workshop on Algebraic Geometry, 10/2008, University of Michigan

Alg. Geometry and Commutative Alg. (Hartshorne's 70th), 04/2008, Univ. of Illinois at Chicago

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CONFERENCES ATTENDED (CONT.)

Michigan-Ohio State-UIC Workshop on Algebraic Geometry, 10/2007, University of Michigan

Algebraic Geometry Session, AMS Meeting, 10/2007, DePaul University

Hot Topics: Minimal and Canonical Models in Algebraic Geometry, 04/2007, MSRI

UIC-Purdue Workshop on Alg. Geom. and Comm. Alg., 12/2006, Purdue Univ., West Lafayette

International Congress of Mathematicians, 08/2006, Madrid

Satellite Conference on Algebraic Geometry, 08/2006, University of Valladolid (Segovia Campus)

Moduli Spaces and Arcs in Algebraic Geometry, 08/2006, University of Cologne

Recent Developments in Higher Dimensional Alg. Geom. (JAMI), 03/2006, Johns Hopkins Univ.

AMS Summer Institute in Algebraic Geometry, 07/2005 and 08/2005, University of Washington

Graduate Student Workshop for AMS Summer Inst. in Alg. Geom., 07/2005, Univ. of Washington

YMIS 2005: First Meeting for Young Mathematicians in Sedano, 02/2005, University of Valladolid

PRAGMATIC 2004: Hyperbolicity of Complex Varieties, 08/2004 and 09/2004, Univ. of Catania

Midwest Comm. Alg. and Geom. Meeting (Lipman's fest), 05/2004, Purdue Univ., West Lafayette

Asymptotic and Effective Results in Complex Geom. (JAMI), 03/2004, Johns Hopkins University

Cohomological Methods in Algebraic Geometry, 09/2002, University of Santiago de Compostela

Seminar on Higher Algebraic Geometry, 07/2002, University of Santiago de Compostela

TECHNICAL SKILLS

Operating Systems: Unix, Linux, Microsoft Windows.
Programming Languages: FORTRAN, C, Java, Python, HTML, PHP.
Others: Sage, Mathematica, Maple, Singular, Macaulay2, TeX, LaTeX.

LANGUAGES

Native Speaker of Spanish and Galician
Fluent in English and Portuguese
Reading skills in French and Italian

REFERENCES

Aaron Bertram, University of Utah

Tommaso de Fernex, University of Utah

Lawrence Ein, University of Illinois at Chicago

Christopher Hacon, University of Utah

Mircea Mustaţă, University of Michigan

Henryk Hecht, University of Utah (teaching)