

Eliana M. Duarte

CONTACT INFORMATION	Max Planck Institute for Mathematics in the Sciences Inselstrasse 22 Leipzig, Germany, 04103	+49(0)341-9959763 duarte@mis.mpg.de https://emduart2.github.io
RESEARCH INTERESTS	Commutative algebra, computational algebraic geometry, implicit equations of parameterized surfaces, algebraic statistics, rigidity of rod and pinion 2D and 3D frameworks.	
EMPLOYMENT	Otto Von Guericke Universität Magdeburg Complexity Reduction RTG, Postdoctoral researcher . Supervisor: Thomas Kahle. December 2017- November 2020. Magdeburg, Germany. Max Planck Institute for Mathematics in the Sciences Postdoctoral researcher. Supervisor: Bernd Sturmfels. April 2017- November 2017. Leipzig, Germany. Wolfram Research Summer intern. Supervisor: Daniel Lichtblau. Summer 2016. Champaign, Illinois.	
EDUCATION	University of Illinois at Urbana-Champaign Ph.D in Mathematics, May 2017 <ul style="list-style-type: none">• Dissertation Title: Syzygies and implicitization of tensor product surfaces• Advisor: Hal Schenck Binghamton University, State University of New York M.A. in Mathematics, May 2011 Universidad de los Andes, Bogotá, Colombia B.S. in Mathematics, March 2009	
PUBLICATIONS	E. Duarte. <i>Implicitization of tensor product surfaces in the presence of a generic set of basepoints</i> . Journal of Algebra and Its Applications (2016): 1750189. E. Duarte, and D. Lichtblau . <i>Polynomial GCDs by Syzygies</i> . Symbolic and Numeric Algorithms for Scientific Computing (SYNASC), 2016 18th International Symposium on. IEEE, 2016. E. Duarte and H. Schenck <i>Tensor Product Surfaces and linear syzygies</i> , Proceedings of the American Mathematical Society 144.1 (2016): 65-72. E. Duarte and G. Francis <i>Stability of quasicrystal frameworks in 2D and 3D</i> , in Felix Escrig and Jose Sanches (eds), Proceedings of the First Conference Transformables, Seville, Spain, 2013.	
INVITED TALKS	Algebraic methods in statistics , Universität Osnabrück. December 2017. Non-linear algebra seminar , Max Planck Institute MIS. May 2017. AROMATH seminar , INRIA Sophia Antipolis. January 2017.	

CONFERENCE
PRESENTATIONS

Algebraic Statistics Day, Max Planck Institute MIS, Leipzig. (August 2017)
SIAM conference in applied algebraic geometry, Georgia Institute of Technology. (August 2017)
Combinatorial algebra meets algebraic geometry, Université du Quebec á Montréal.(January 2017)
AMS special session on combinatorial ideals and applications, North Dakota State University. (April 2016)
AMS special session on combinatorial and computational algebra, University of Georgia Athens. (March 2016)
Joint Math Meetings - AMS special session on commutative algebra, Seattle. (January 2016)
Joint Math Meetings - Association for Women in Mathematics Workshop, Seattle. Poster session. (January 2016)
AMS special session on combinatorial and computational algebra, Loyola University Chicago. (October 2015)
Midwest commutative algebra and geometry conference, Purdue University. Poster session. (August 2015)
Midwest algebraic geometry graduate student conference, University of Illinois Chicago. (April 2015)
Mathematical Modeling in Insdustry Workshop, Pacific Institute for the mathematical sciences. (August 2014)
Encuentro Colombiano de combinatoria, Universidad de los Andes.(June 2014)
Transformables 2013, Seville, Spain. (September 2013)

RESEARCH
WORKSHOPS
ATTENDED

September 2017	Binomial ideals autumm school in algebraic geometry, Lukecin, Poland.
July 2017	Reading group in real algebraic geometry, Max Planck Institute MIS. Leipzig, Germany.
April 2017	Oberwolfach workshop on Algebraic Statistics.
August 2016	Banff International Research Station, Computational Algebraic Geometry and Geometric Modeling. Oaxaca, Mexico.
July 2015	Graduate student bootcamp for the 2015 Algebraic Geometry summer research institute. University of Utah.
June 2015	Mathematical Research Communities - Commutative algebra Snowbird resort, Utah
June 2014	Macaulay 2 Summer School and Conferece University of Illinois, Urbana-Champaign.
August 2014	Mathematical Modeling in Industry, Boeing reasearch group. Pacific Institute for the Mathematical Sciences

CONFERENCE
ORGANIZATION

June 2018	<i>Macaulay2</i> workshop, Max Planck Institute MIS. Leipzig, Germany.
November 2017	Algebraic Statistics Day. Max Planck Institute MIS. Leipzig, Germany.
August 2017	Algebraic Statistics Day. Max Planck Institute MIS. Leipzig, Germany.
April 2015	Co-organizer of the Graduate student topology and geometry conference at UIUC.

PROFESSIONAL ACTIVITIES	May 2017 - July 2017	Co-organizer of the Non-linear Algebra Seminar, Max Planck Institute MIS. Leipzig, Germany
	Aug. 2016 - May 2017	President of the Association for Women in Math chapter at University of Illinois. Urbana, IL.
	Aug. 2015 - May 2016	Founder and organizer of the Graduate Student Colloquium in the Mathematics Department at UIUC.
	Feb. 2015- Nov. 2016	Organizer of public outreach activities in math for middle schools girls. Urbana, IL.
HONORS AND AWARDS	Spring 2017 and 2016	Mathematics Departmental Fellowship University of Illinois, Urbana-Champaign.
TEACHING EXPERIENCE	Spring 2016	Teaching assistant, Calculus 2
	Fall 2014	Lab Instructor, Theory of arithmetic for elementary school teachers
	Fall 2013	Merit section teaching assistant, Calculus 1
	Spring 2013	Teaching assistant, Calculus 3
RELEVANT SKILLS	Programming:	L ^A T _E X, Macaulay2, Mathematica, OpenGL.
	Languages:	Spanish(Native Speaker), English(fluent), French(working knowledge), German(beginner).
REFERENCES	Hal Schenck , Mathematics Professor University of Illinois Urbana-Champaign, schenck@illinois.edu	
	George Francis , Mathematics Professor University of Illinois Urbana-Champaign, gfrancis@illinois.edu	
	Bernd Sturmfels , Mathematics Professor and Director Max Planck Institute for Mathematics in the Sciences, bernd@berkeley.edu	