

Anna SOMOZA HENARES

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ACADEMIC POSITIONS

SEP. 18–APR. 19 **Visiting researcher**, Max Planck Institute for Mathematics, Bonn, Germany

EDUCATION

2019 **PhD** in Mathematics, Universiteit Leiden, Leiden, The Netherlands.

PhD in Applied Mathematics – Cum laude, Universitat Politècnica de Catalunya, Barcelona, Spain.

PhD thesis: Inverse Jacobian and related topics for certain superelliptic curves (supervised by Joan-Carles Lario and Marco Streng) 28th March 2019.

2014 **Master** in Advanced Mathematics and Mathematical Engineering, Universitat Politècnica de Catalunya, Barcelona, Spain.

2013 **Bachelor** of Mathematics, Universitat Politècnica de Catalunya, Barcelona, Spain.

PUBLICATIONS AND PREPRINTS

- [1] N. Anbar, A. Odzak, V. Patel, L. Quoos, A. Somoza, A. Topuzoğlu. *On the Carlitz Rank of permutation polynomials over finite fields: recent developments*, (Apr. 2017.) In *Women in Numbers Europe 2: Research Directions in Number Theory*, edited by I. Bouw, R. Newton and E. Özman, Association for Women in Mathematics Series, vol. 11, Springer.
- [2] N. Anbar, A. Odzak, V. Patel, L. Quoos, A. Somoza, A. Topuzoğlu. *On the difference between permutation polynomials* (Mar. 2017). *Finite Fields and Their Applications*, 49, pp. 132 - 142, 2018.
- [3] J-C. Lario, A. Somoza. *A note on Picard curves of CM-type* (Nov. 2016). arXiv1611.02582.
- [4] J-C. Lario, A. Somoza. *The Sato-Tate conjecture for a Picard curve with Complex Multiplication* (Oct. 2014). *Number Theory Related to Modular Curves, Momose Memorial Volume*, pp. 151 - 166, AMS Contemporary Mathematics. arXiv:1409.6020.

TALKS

MAY 2018 **Reconstruction of cyclic plane quintic curves (Invited talk)** Linfoot seminar, Bristol, United Kingdom.

- APR. 2018 From the difference of permutation polynomials to the construction of algebraic curves with Complex Multiplication (Invited talk) Workshop on Finite Fields, Function Fields and Their Applications, Istanbul, Turkey.
- FEB. 2018 Reconstruction of cyclic plane quintic curves (Invited talk) Workshop on Numerical methods for algebraic curves, Rennes, France.
- SEP. 2017 Construction of Picard curves with complex multiplication IV Congreso de Jóvenes Investigadores de la RSME, Valencia, Spain.
- JULY 2017 Construction of Picard curves Workshop on curves of low genus, Barcelona, Spain.
- JUNE 2017 Construction of Picard curves with complex multiplication Meeting of the Catalan, Spanish, Swedish Math Societies, Ume, Sweden.
- JUNE 2017 Construction of Picard curves Algebra and Number Theory Seminar, Universiteit Leiden, Leiden, Netherlands
- JUNE 2017 Construction of Picard curves with complex multiplication DIAMANT Symposium Spring 2017, Breukelen, Netherlands.
- SEP. 2016 On permutation polynomials WINE2, Lorentz Center, Leiden, Netherlands.
- FEB. 2016 Arithmetic on CM Picard curves STNB 2016, Universitat de Barcelona, Barcelona, Spain.

WORKSHOPS AND CONGRESSES ATTENDED

- MAY 2019 School – Curves and groups in families Université de Rennes 1, Rennes, France.
- APR. 2019 Sage days 98 - Women in Sage Crete, Greece.
- JAN. 2019 Barcelona Number Theory Seminar 2019 (STNB19) Universitat de Barcelona, Barcelona, Spain.
- APR. 2018 Workshop on Finite Fields, Function Fields and Their Applications Sabanci Universitesi, Istanbul, Turkey.
- FEB. 2018 Workshop on Numerical methods for algebraic curves Université de Rennes 1, Rennes, France.
- FEB. 2017 DIAMANT Symposium Fall 2017 Breukelen, Netherlands.
- SEP. 2017 IV Congreso de Jóvenes Investigadores de la RSME Universitat de Valencia, Valencia, Spain.
- JULY 2017 Workshop on curves of low genus Universitat de Barcelona, Barcelona, Spain.
- JULY 2017 Foundations of Computational Mathematics 2017 Universitat Politècnica de Catalunya, Barcelona, Spain.
- JUNE 2017 Workshop on Arithmetic and Computation KU Leuven, Leuven, Belgium.

JUNE 2017	Meeting of the Catalan, Spanish, Swedish Math Societies	Linköping University, Ume, Sweden.
JUNE 2017	DIAMANT Symposium Spring 2017	Breukelen, Netherlands.
JAN. 2017	Barcelona Number Theory Seminar 2017 (STNB17)	Universitat de Barcelona, Barcelona, Spain.
JAN. 2017	Sage days 82 - Women in Sage	Paris, France.
SEP. 2016	Women in Numbers Europe - 2	Lorentz Center, Leiden, Netherlands.
MARCH 2016	Arizona Winter School 2016 Analytic Methods in Arithmetic Geometry	University of Arizona, Tucson, AZ, USA.
FEB. 2016	Barcelona Number Theory Seminar 2016 (STNB16)	Universitat de Barcelona, Barcelona, Spain.
JULY 2014	CMI Summer School 2014 Periods and Motives: Feynman amplitudes in the 21st century	ICMAT, Madrid, Spain.
JUNE 2014	Summer Mathematics School 2014 Counting arithmetic objects	CRM, Montral, Canada.
FEB. 2014	Winter school 2014 Frobenius distribution on curves	CIRM, Marseille, France.

COMPUTER SKILLS

BASIC	Magma, Nvidia CUDA (Parallel programming language)
INTERMEDIATE	C++, Matlab, Mathematica, Maple, R
ADVANCED	SageMath, Python

LANGUAGES

SPANISH	Mothertongue
CATALAN	Mothertongue
ENGLISH	Fluent
FRENCH	Basic

TEACHING EXPERIENCE

SPRING 2018	Teaching assistant for the course <i>Elliptic curves</i> , Mastermath program, the Netherlands.
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- FALL 2016 Teaching assistant for the course *Mathematics foundations*, first-year course of the Bachelor of Computer Science, *Universitat Politècnica de Catalunya*, Barcelona, Spain.
- 2014-JAN. 2016 Teacher at an academy for university students, in charge of teaching and organizing several mathematics courses, *Academia Sol*, Barcelona, Spain.
- SPRING 2012 Teaching assistant for the course *Geometria Afí i Euclidiana* (Euclidean and affine geometry), first-year course of the Bachelor of Mathematics, *Universitat Politècnica de Catalunya*, Barcelona, Spain.
- FALL 2011 Teaching assistant for the course *Càlcul en una variable* (One-variable calculus), first-year course of the Bachelor of Mathematics, *Universitat Politècnica de Catalunya*, Barcelona, Spain.