



# CONTEMPORARY DEVELOPMENTS IN FINITE FIELDS AND APPLICATIONS

*Anne Canteaut, Gove Effinger, Sophie Huczynska, Daniel Panario, Leo Storme*

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The volume is a collection of 20 refereed articles written in connection with lectures presented at the 12th International Conference on Finite Fields and Their Applications ("Fq12") at Skidmore College in Saratoga Springs, NY in July 2015. Finite fields are central to modern cryptography and secure digital communication, and hence must evolve rapidly to keep pace with new technologies. Topics in this volume include cryptography, coding theory, structure of finite fields, algorithms, curves over finite fields, and further applications.

Contributors will include: Antoine Joux (Fondation Partenariale de l'UPMC, France); Gary Mullen (Penn State University, USA); Gohar Kyureghyan (Otto-von-Guericke Universität, Germany); Gary McGuire (University College Dublin, Ireland); Michel Lavrauw (Università degli Studi di Padova, Italy); Kirsten Eisentraeger (Penn State University, USA); Renate Scheidler (University of Calgary, Canada); Michael Zieve (University of Michigan, USA).

## Contents:

- Divisibility of L-Polynomials for a Family of Curves (*I Blanco-Chacón, R Chapman, S Fordham and G McGuire*)
- Divisibility of Exponential Sums Associated to Binomials Over  $\mathbb{F}_p$  (*F Castro, R Figueroa, P Guan and J Ortiz-Ubarri*)
- Dickson Polynomials that are Involutions (*P Charpin, S Mesnager and S Sarkar*)
- Constructing Elliptic Curves and Curves of Genus 2 over Finite Fields (*K Eisenträger*)
- A Family of Plane Curves with Two or More Galois Points in Positive Characteristic (*S Fukasawa*)
- Permutation Polynomials of  $\mathbb{F}_q$  of the Form  $\alpha X + X^{r(q-1)+1}$  (*X-D Hou*)
- Character Sums and Generating Sets (*M-D A Huang and L Liu*)
- Nearly Sparse Linear Algebra and Application to Discrete Logarithms Computations (*A Joux and C Pierrot*)
- Full Degree Two del Pezzo Surfaces over Small Finite Fields (*A Knecht and K Reyes*)
- Diameter of Some Monomial Digraphs (*A Kodess, F Lazebnik, S Smith and J Sporre*)
- Permutation Polynomials of the Form  $X + \gamma \text{Tr}(X^k)$  (*G Kyureghyan and M Zieve*)
- Scattered Spaces in Galois Geometry (*M Lavrauw*)
- On the Value Set of Small Families of Polynomials over a Finite Field, III (*G Matera, M Pérez and Melina Privitelli*)
- The Density of Unimodular Matrices over Integrally Closed Subrings of Function Fields (*G Micheli and R Schnyder*)
- Some Open Problems Arising from My Recent Finite Field Research (*G L Mullen*)
- On Coefficients of Powers of Polynomials and Their Compositions over Finite Fields (*G L Mullen, A Muratovi-Ribi and Q Wang*)
- On the Structure of Certain Reduced Linear Modular Systems (*E Orozco*)
- Finding a Gröbner Basis for the Ideal of Recurrence Relations on  $m$ -Dimensional Periodic Arrays (*I M Rubio, M Sweedler and C Heegard*)

- An Introduction to Hyperelliptic Curve Arithmetic (*R Scheidler*)
- On the Existence of Aperiodic Complementary Hexagonal Lattice Arrays (*Y Tan and G Gong*)

**Readership:** Researchers in combinatorics and graph theory, numerical analysis and computational mathematics, and coding theory.

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