

Cambridge University Press
 052156736X - Finite Fields and Applications: Proceedings of the Third International Conference, Glasgow, July 1995
 Edited by S. Cohen and H. Niederreiter
 Table of Contents
[More information](#)

Contents

Preface	v
Conference Participants	vii
Factorizations over finite fields Shreeram S Abhyankar	1
Class number in totally imaginary extensions of totally real function fields Yves Aubry	23
Automorphism groups and permutation groups of affine-invariant codes Thierry P Berger	31
A construction of bent functions Claude Carlet	47
Monodromy groups of classical families over finite fields Stephen D Cohen and Rex W Matthews	59
Wan's bound for value sets of polynomials Thomas W Cusick and Peter Müller	69
Comparative implementations of Berlekamp's and Niederreiter's polynomial factorization algorithms Peter Fleischmann and Peter Roelse	73
On the minimal polynomials for certain Gauss periods over finite fields S Gurak	85
Completely free elements Dirk Hachenberger	97
Exponential sums over Galois rings and their applications T Helleseth, P V Kumar and A G Shanbhag	109
Maximal sets of mutually orthogonal Latin squares Dieter Jungnickel	129
Examples of small hybrid sums Jyrki Lahtonen	155
Cellular automata, substitutions and factorization of polynomials over finite fields Ehler Lange	163
A new class of two weight codes Philippe Langevin	181

Cambridge University Press

052156736X - Finite Fields and Applications: Proceedings of the Third International Conference, Glasgow, July 1995

Edited by S. Cohen and H. Niederreiter

Table of Contents

[More information](#)

vi

Contents

Construction of digital (t, m, s) -nets from linear codes K Mark Lawrence, Arijit Mahalanabis, Gary L Mullen and Wolfgang Ch Schmid	189
A family of exceptional polynomials in characteristic three H W Lenstra, Jr and M Zieve	209
Estimates of character sums arising from finite upper half planes Wen-Ching Winnie Li	219
Carmichael-Carlitz polynomials and Fermat-Carlitz quotients Véronique Mauduit	229
Open problems and conjectures in finite fields Gary L Mullen and Igor Shparlinski	243
Quasirandom points and global function fields Harald Niederreiter and Chaoping Xing	269
Use characteristic sets to decode cyclic codes up to actual minimum distance Chunming Rong and Tor Helleseth	297
Approximate constructions in finite fields Igor Shparlinski	313
Periodicity properties of k th order linear recurrences whose characteristic polynomial splits completely over a finite field, II Lawrence Somer	333
Factoring cyclotomic polynomials over large finite fields Greg Stein	349
Character sums and coding theory Serguei A Stepanov	355
L -functions of algebraic varieties over finite fields: rationality, meromorphy and entireness Daqing Wan	379
Some congruences and identities for generalizations of Rédei functions Paul Thomas Young	395