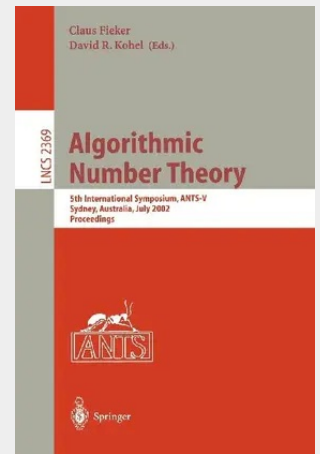


Algorithmic Number Theory

5th International Symposium, ANTS-V, Sydney, Australia, July 7-12, 2002. Proceedings

. 9 John Coates The Weil and Tate Pairings as Building Blocks for Public Key Cryptosystems. 20 Antoine Joux Using Elliptic Curves of Rank One towards the Undecidability of Hilbert's Tenth Problem over Rings of Algebraic Integers. 33 Bjorn Poonen On p -adic Point Counting Algorithms for Elliptic Curves over Finite Fields. 43 Takakazu Satoh Number Theory On Arithmetically Equivalent Number Fields of Small Degree. 67 Wieb Bosma, Bart de Smit A Survey of Discriminant Counting. 80 Henri Cohen, Francisco Diaz Diaz, Michel Olivier A Higher-Rank Mersenne Problem. 95 Graham Everest, Peter Rogers, Thomas Ward An Application of Siegel Modular Functions to Kronecker's Limit Formula. 108 Takashi Fukuda, Keiichi Komatsu Computational Aspects of NUCOMP. 120 Michael J. Jacobson, Jr., Alfred J. van der Poorten Efficient Computation of Class Numbers of Real Abelian Number Fields. 134 St'ephane R. Louboutin An Accelerated Buchmann Algorithm for Regulator Computation in Real Quadratic Fields. 148 Ulrich Vollmer VIII Table of Contents Arithmetic Geometry Some Genus 3 Curves with Many Points. 163 Roland Auer, Jaap Top 7 8 Trinomials $x^2 + bx + c$ with Galois Groups of Order 168 and $8 \cdot 168$. 172 Nils Bruin, Noam D. Elkies Computation on Modular Jacobian Surfaces. 189 Enrique Gonz'alez-Jim'enez, Josep Gonz'alez, Jordi Gu'ardia Integral Points on Punctured Abelian Surfaces. 198 Andrew Kresch, Yuri Tschinkel Genus 2 Curves with $(3,3)$ -Split Jacobian and Large Automorphism Group. 205 Tony Shaska Transportable Modular Symbols and the Intersection Pairing. 219 Helena A. Verrill Elliptic Curves and CM Action of Modular Correspondences around CM Points. 234 Jean-Marc Couveignes, Thierry Henocq 2 3 Curves $Dy = x^2 x \text{ of Odd Analytic Rank}$. 244 Noam D. Elkies Comparing Invariants for Class Fields of Imaginary Quadratic Fields. 252 Andreas Enge, Fran, cois Morain A Database of Elliptic Curves—First Report. 267 William A. Stein, Mark Watkins Point Counting Isogeny Volcanoes and the SEA Algorithm. 276 Mireille Fouquet, Fran, cois Morain Fast Elliptic Curve Point Counting Using Gaussian Normal Basis. 292 Hae Young Kim, Jung Youl Park, Jung Hee Cheon, Je Hong Park, Jae Heon Kim, Sang Geun Hahn An Extension of Kedlaya's Algorithm to Artin-Schreier Curves in Characteristic 2. 308 Jan Denef, Frederik Vercauteren Table of Contents IX Cryptography Implementing the Tate Pairing. 324 Steven D. Galbraith, Keith Harrison, David Soldera Smooth Orders and Cryptographic Applications. 338 Carl Pomerance, Igor E. Shparlinski Chinese Remaindering for Algebraic Numbers in a Hidden Field. 349 Igor E. Shparlinski, Ron Steinfeld Function Fields An Algorithm for Computing Weierstrass Points. 357 Florian Hess New Optimal Tame Towers of Function Fields over Small Finite Fields. 372 Wen-Ching W. Li, Hiren Maharaj, Henning Stichtenoth, Noam D. Elkies Periodic Continued Fractions in Elliptic Function Fields. 390 Alfred J. van der Poorten, Xuan Chuong Tran Discrete Logarithms and Factoring Fixed Points and Two-Cycles of the Discrete Logarithm. 405 Joshua Holden Random Cayley Digraphs and the Discrete Logarithm. 416 Jeremy Horwitz, Ramarathnam Venkatesan The Function Field Sieve is Quite Special. 431 Antoine Joux, Reynald Lercier MPQS with Three Large Primes. 446 Paul Leyland, Arjen Lenstra, Bruce Dodson, Alec Mu'ett, Sam Wagsta? An Improved Baby Step Giant Step Algorithm for Point Counting of Hyperelliptic Curves over Finite Fields. 461 Kazuto Matsuo, Jinhui Chao, Shigeo Tsujii 2 Factoring $N=pq$ with the Elliptic Curve Method. 475 Peter Ebinger, Edlyn Teske Gr'obner Bases A New Scheme for Computing with Algebraically Closed Fields. 491 Allan Steel X Table of Contents Complexity Additive Complexity and Roots of Polynomials over Number Fields and p -adic Fields. 506 J. Maurice Rojas Author Index. 517 Gauss Composition and Generalizations Manjul Bhargava Clay Mathematics Institute and Princeton University Abstract. We discuss several higher analogues of Gauss



53,49 €

49,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783540438632

Medium: Buch

ISBN: 978-3-540-43863-2

Verlag: Springer

Erscheinungstermin: 26.06.2002

Sprache(n): Englisch

Auflage: 1. Auflage 2002

Serie: Lecture Notes in Computer Science

Produktform: Kartoniert

Gewicht: 1630 g

Seiten: 522

Format (B x H): 155 x 235 mm

