

1. Record Nr.	UNISA996465636903316
Titolo	Applied Algebra, Algebraic Algorithms and Error-Correcting Codes [[electronic resource]] : 5th International Conference, AAECC-5, Menorca, Spain, June 15-19, 1987. Proceedings // edited by Llorenç Huguet, Alain Poli
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1989
ISBN	3-540-46150-7
Edizione	[1st ed. 1989.]
Descrizione fisica	1 online resource (VIII, 420 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 356
Disciplina	005.74
Soggetti	Data structures (Computer science) Coding theory Information theory Computer science—Mathematics Data Structures and Information Theory Coding and Information Theory Symbolic and Algebraic Manipulation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Non simple tournaments : Theoretical properties and a polynomial algorithm -- Covering radius for codes obtained from T(m) triangular graphs -- Searching for weakly autocorrelated binary sequences -- On the prefixes of a random trace and the membership problem for context-free trace languages -- On decoding binary quadratic residue codes -- Pseudometrics associated with fuzzy relations having weak properties -- Towards an expert system for error correcting codes: SECC -- An Iterative Euclidean Algorithm -- Gröbner bases and differential algebra -- A procedure to prove geometrical statements -- Some applications of a classification of affine-invariant codes -- On the computation of the local and global analytic branches of a real algebraic curve -- Distribution of codewords and decoding error rate in rs codes with application to performance evaluation from optical disc -- On generalized minimum distance decoding -- Newton symmetric

functions and the arithmetic of algebraically closed fields -- Non linear covering codes : A few results and conjectures -- Grobner bases, Ritt's algorithm and decision procedures for algebraic theories -- An algebraic model for the storage of data in parallel memories -- Algebraic solution of systems of polynomial equations using Groebner bases -- How to decide whether a polynomial ideal is primary or not -- On the computational complexity of polynomials and bilinear mappings. A survey -- Coding theory and its applications in Japan -- Binary sequences with good correlation properties -- Hankel matrices and polynomials -- On the (d,D,D,s) -digraph problem -- It is decidable in polynomial time whether a monoid presented by a finite weight-reducing and confluent thue system is torsion-free -- A shift-remainder GCD algorithm -- New class of cyclic, random and burst error correcting codes -- A conjecture on the free distance of $(2,1,m)$ binary convolutional codes -- On the construction of completely regular linear codes from distance — Regular graphs -- Synthesis of two-dimensional linear feedback shift registers and Groebner bases -- Constructing universal Gröbner bases.

Sommario/riassunto

The present volume contains the proceedings of the AAEECC-5 Conference held at Menorca (Balearic Islands), June 15-19, 1987. The annual International AAEECC Conference covers a range of topics related to Applied Algebra, Error-Correcting Codes, Finite Algebraic Structures, Computational Methods and Complexity in Algebra and Geometry. For the AAEECC-5 Conference 73 papers were presented. Out of these thirty papers were selected for publication in the proceedings. They deal with topics such as error correcting codes (concerning problems of covering radius, decoding methods, expert systems and general results in coding theory), computational algebra, Gröbner basis, complexity, finite algebra and graphs. The proceedings of the 6th conference are published as Vol. 357 of the Lecture Notes in Computer Science.
