Coding Theory And Algebraic Geometry Proceedings Of The International Workshop Held In Luminy Franc

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Arithmetic, Geometry, Cryptography, and Coding Theory 2021 - Samuele Anni 2022-07-06
This volume contains the proceedings of the 18th International Conference on Arithmetic, Geometry, Cryptography, and Coding Theory, held (online) from May 31 to June 4, 2021. For over thirty years, the biennial international conference AGC^{2}T (Arithmetic, Geometry, Cryptography, and Coding Theory) has brought researchers together to forge connections between arithmetic geometry and its applications to coding theory and to cryptography. The papers illustrate the fruitful interaction between abstract theory and explicit computations, covering a large range of topics, including Belyi maps, Galois representations attached to elliptic curves, reconstruction of curves from their Jacobians, isogeny graphs of abelian varieties, hypergeometric equations, and Drinfeld modules.
Handbook of Coding Theory - Vera Pless 1998-11-16

Applied Algebra, Algebraic Algorithms and Error-Correcting Codes - Marc Fossorier 2006-01-13
The 25 revised full papers presented here together with 7 invited papers address subjects such as block codes; algebra and codes: rings, fields, and AG codes; cryptography; sequences; decoding algorithms; and algebra: constructions in algebra, Galois groups, differential algebra, and polynomials.
Arithmetic, Geometry, and Coding Theory - R. Pellikaan 1996-01-01
The series is aimed specifically at publishing peer reviewed reviews and contributions presented at workshops and conferences. Each volume is associated with a particular conference, symposium or workshop. These events cover various topics within pure and applied mathematics and provide up-to-date coverage of new developments, methods and applications.
Topics in Geometry, Coding Theory and Cryptography - Arnaldo Garcia 2006-11-15
The theory of algebraic function fields over finite fields has its origins in number theory. However, after Goppa`s discovery of algebraic geometry codes around 1980, many applications of function fields were found in different areas of mathematics and information theory. This book presents survey articles on some of these new developments. The topics focus on material which has not yet been presented in other books or survey articles.
Algorithmic Arithmetic, Geometry, and Coding Theory - Stéphane Ballet 2015-04-20
This volume contains the proceedings of the 14th International Conference on Arithmetic, Geometry, Cryptography, and Coding Theory (AGCT), held June 3-7, 2013, at CIRM, Marseille, France. These international conferences, held every two years, have been a major event in the area of algorithmic and applied arithmetic geometry for more than 20 years. This volume contains 13 original research articles covering geometric error correcting codes, and algorithmic and explicit arithmetic geometry of curves and higher dimensional varieties. Tools used in these articles include classical algebraic geometry of curves, varieties and Jacobians, Suslin homology, Monsky-Washnitzer cohomology, and -functions of modular forms.
Algebraic Codes on Lines, Planes, and Curves - Richard E. Blahut 2008-04-03
The past few years have witnessed significant developments in algebraic coding theory. This book provides an advanced treatment of the subject from an engineering perspective, covering the basic principles and their application in communications and signal processing. Emphasis is on codes defined on the line, on the plane, and on curves, with the core ideas presented using commutative algebra and computational algebraic geometry made accessible using the Fourier transform. Starting with codes defined on a line, a background framework is established upon which the later chapters concerning codes on planes, and on curves, are developed. The decoding algorithms are developed using the standard engineering approach applied to those of Reed-Solomon codes, enabling them to be evaluated against practical applications. Integrating recent developments in the field into the classical treatment of algebraic coding, this is an invaluable resource for graduate students and researchers in telecommunications and applied mathematics.
Algebraic Aspects of Digital Communications - Tanush Shaska 2009
-Proceedings of the NATO Advanced Study Institute on New Challenges in Digital Communications, Vlora, Albania, 27 April - 9 May 2008.---T.p. verso.
Advances in Algebraic Geometry Codes -
Applications of Algebraic Geometry to Coding Theory, Physics and Computation - Ciro Ciliberto 2012-12-06
An up-to-date report on the current status of important research topics in algebraic geometry and its applications, such as computational algebra and geometry, singularity theory algorithms, numerical solutions of polynomial systems, coding theory, communication networks, and computer vision. Contributions on more fundamental aspects of algebraic geometry include expositions related to counting points on varieties over finite fields, Mori theory, linear systems, Abelian varieties, vector bundles on singular curves, degenerations of surfaces, and mirror symmetry of Calabi-Yau manifolds.
Different Aspects of Coding Theory - Robert Calderbank 1995
The symposia in applied mathematics have been held under the auspices of the American Mathematical Society and others since 1967. This books connects coding theory with actual applications in consumer electronics and with other areas of mathematics. It covers in detail the mathematical foundations of digital data storage and makes connections to symbolic dynamics, linear systems, and finite automata. It also explores the use of algebraic geometry within coding theory and examines links with finite geometry, statistics, and theoretical computer science.
Coding Theory and Applications - Raquel Pinto 2015-07-24
The topics covered in this book, written by researchers at the forefront of their field, represent some of the most relevant research areas in modern coding theory: codes and combinatorial structures, algebraic geometric codes, group codes, quantum codes, convolutional codes, network coding and cryptography. The book includes a survey paper on the interconnections of coding theory with constrained systems, written by an invited speaker, as well as 37 cutting-edge research communications presented at the 4th International Castle Meeting on Coding Theory and Applications (4ICMCTA), held at the Castle of Palmela in September 2014. The event’s scientific program consisted of four invited talks and 39 regular talks by authors from 24 different countries. This conference provided an ideal opportunity for communicating new results,

exchanging ideas, strengthening international cooperation, and introducing young researchers into the coding theory community.

Arithmetic, Geometry, Cryptography and Coding Theory - Alp Bassa 2017-03-27

This volume contains the proceedings of the 15th International Conference on Arithmetic, Geometry, Cryptography, and Coding Theory (AGCT), held at the Centre International de Rencontres Mathématiques in Marseille, France, from May 18–22, 2015. Since the first meeting almost 30 years ago, the biennial AGCT meetings have been one of the main events bringing together researchers interested in explicit aspects of arithmetic geometry and applications to coding theory and cryptography. This volume contains original research articles reflecting recent developments in the field.

Numerical Semigroups - Valentina Barucci 2021-05-14

This book presents the state of the art on numerical semigroups and related subjects, offering different perspectives on research in the field and including results and examples that are very difficult to find in a structured exposition elsewhere. The contents comprise the proceedings of the 2018 INdAM “International Meeting on Numerical Semigroups”, held in Cortona, Italy. Talks at the meeting centered not only on traditional types of numerical semigroups, such as Arf or symmetric, and their usual properties, but also on related types of semigroups, such as affine, Puiseux, Weierstrass, and primary, and their applications in other branches of algebra, including semigroup rings, coding theory, star operations, and Hilbert functions. The papers in the book reflect the variety of the talks and derive from research areas including Semigroup Theory, Factorization Theory, Algebraic Geometry, Combinatorics, Commutative Algebra, Coding Theory, and Number Theory. The book is intended for researchers and students who want to learn about recent developments in the theory of numerical semigroups and its connections with other research fields.

Applications of Computational Algebraic Geometry - David A. Cox Dinesh N. Manocha Bernd Sturmfels

This book introduces readers to key ideas and applications of computational algebraic geometry. Beginning with the discovery of Gröbner bases and fueled by the advent of modern computers and the rediscovery of resultants, computational algebraic geometry has grown rapidly in importance. The fact that "crunching equations" is now as easy as "crunching numbers" has had a profound impact in recent years. At the same time, the mathematics used in computational algebraic geometry is unusually elegant and accessible, which makes the subject easy to learn and easy to apply. This book begins with an introduction to Gröbner bases and resultants, then discusses some of the more recent methods for solving systems of polynomial equations. A sampler of possible applications follows, including computer-aided geometric design, complex information systems, integer programming, and algebraic coding theory. The lectures in this book assume no previous acquaintance with the material.

Coding Theory and Algebraic Geometry - Henning Stichtenoth 2006-11-15

About ten years ago, V.D. Goppa found a surprising connection between the theory of algebraic curves over a finite field and error-correcting codes. The aim of the meeting "Algebraic Geometry and Coding Theory" was to give a survey on the present state of research in this field and related topics. The proceedings contain research papers on several aspects of the theory, among them: Codes constructed from special curves and from higher-dimensional varieties, Decoding of algebraic geometric codes, Trace codes, Exponen- tial sums, Fast multiplication in finite fields, Asymptotic number of points on algebraic curves, Sphere packings.

Algebraic Coding - Gerard Cohen 1994-04-28

This book discusses the changes in the regional infrastructure within the European automobile industry. It is based on the increased competition between the European automobile industry and its suppliers, which has several causes: the intensified activities of Japanese competitors in Europe, leading to faster adaptation to new production concepts in European companies (lean production); concentration of suppliers in connection with these new concepts; new opportunities and competition as a result of the home market and the opening of Eastern Europe.

Algebraic Geometry Modeling in Information Theory - Edgar Martinez-Moro 2013

Algebraic & geometry methods have constituted a basic background and tool for people working on classic block coding theory and cryptography. Nowadays, new paradigms on coding theory and cryptography have arisen such as: Network coding, S-Boxes, APN Functions, Steganography and decoding by linear programming. Again understanding the underlying procedure and symmetry of these topics needs a whole bunch of non trivial knowledge of algebra and geometry that will be used to both, evaluate those methods and search for new codes and cryptographic applications. This book shows those methods in a self-contained form.

Facets of Algebraic Geometry - Paolo Aluffi 2022-04-07

Written to honor the enduring influence of William Fulton, these articles present substantial contributions to algebraic geometry.

Applications of Computational Algebraic Geometry - Dinesh N. Manocha 1998

This book introduces readers to key ideas and applications of computational algebraic geometry. Beginning with the discovery of Gröbner bases and fueled by the advent of modern computers and the rediscovery of resultants, computational algebraic geometry has grown rapidly in importance. The fact that "crunching equations" is now as easy as "crunching numbers" has had a profound impact in recent years. At the same time, the mathematics used in computational algebraic geometry is unusually elegant and accessible, which makes the subject easy to learn and easy to apply. This book begins with an introduction to Gröbner bases and resultants, then discusses some of the more recent methods for solving systems of polynomial equations. A sampler of possible applications follows, including computer-aided geometric design, complex information systems, integer programming, and algebraic coding theory. The lectures in this book assume no previous acquaintance with the material.

Coding Theory and Applications - Angela Barbero 2008-08-26

It is a pleasure to welcome you to the proceedings of the second International Castle Meeting on Coding Theory and its Applications, held at La Mota Castle in Medina del Campo. The event provided a forum for the exchange of results and ideas, which we hope will foster future collaboration. The ?rst meeting was held in 1999, and, encouraged by that experience, we now intend to hold the meeting every three years. Springer kindly accepted to publish the proceedings volume you have in your hands in their LNCS series. The topics were selected to cover some of the areas of research in Coding Theory that are currently receiving the most attention. The program consisted of a mixture of invited and submitted talks, with the focus on quality rather than quantity. A total of 34 papers were submitted to themeeting.Afteracarefulreviewprocessconductedbythescienti?ccommittee aided by external reviewers, we selected 14 of these for inclusion in the current volume, along with 5 invited papers. The program was further augmented by the remaining invited papers in addition to papers on recent results, printed in a separate volume. We would like to thank everyone who made this meeting possible by helping with the practical and scienti?c preparations: the organization committee, the scienti?c committee, the invited speakers, and the many external reviewers who shall remain anonymous. I would especially like to mention the General Advisor ofthe meeting, ØyvindYtrehus.Finally Iextend mygratitudeto allthe authors and participants who contributed to this meeting.

Using Algebraic Geometry - David A Cox 2005-03-09

The discovery of new algorithms for dealing with polynomial equations, and their implementation on fast, inexpensive computers, has revolutionized algebraic geometry and led to exciting new applications in the field. This book details many uses of algebraic geometry and highlights recent applications of Grobner bases and resultants. This edition contains two new sections, a new chapter, updated references and many minor improvements throughout.

Topics in the Theory of Riemann Surfaces - Robert D.M. Accola 2006-11-14

The book's main concern is automorphisms of Riemann surfaces, giving a foundational treatment from the point of view of Galois coverings, and treating the problem of the largest automorphism group for a Riemann surface of a given genus. In addition, the extent to which fixed points of automorphisms are generalized Weierstrass points is considered. The extremely useful inequality of Castelnuovo- Severi is also treated. While the methods are elementary, much of the material does not appear in the current texts on Riemann surfaces, algebraic curves. The book is accessible to a reader who has had an introductory course on the theory of Riemann surfaces or algebraic curves.

Coding Theory, Design Theory, Group Theory - D. Jungnickel 1993-07-21

Contains papers prepared for the 1990 multidisciplinary conference held to honor the late mathematician

and researcher. Topics include applications of classic geometry to finite geometries and designs; multiple transitive permutation groups; low dimensional groups and their geometry; difference sets in 2-groups; construction of Galois groups; construction of strongly p-imbeded subgroups in finite simple groups; Hall triple systems, Fisher spaces and 3-transposition groups; explicit embeddings in finitely generated groups; 2-transitive and flag transitive designs; efficient representations of perm groups; codes and combinatorial designs; optimal normal bases for finite fields; vector space designs from quadratic forms and inequalities; primitive permutation groups, graphs and relation algebras; large sets of ordered designs, orthogonal 1-factorizations and hyperovals; algebraic integers all of whose algebraic conjugates have the same absolute value.

Eurocode ’92 - P. Camion 1993-10-13

This book is made of the proceedings of EUROCODE 1992 which was held in Udine (Italy) at the CISM, October 27 - 30, 1992. EUROCODE ’92 is a continuation as well as an extension of the previous colloquia Trois Journèes sur le codage and EUROCODE ’90, whose proceedings appeared as Lecture Notes in Computer Science (Volumes 388 and 514). The aim of EUROCODE ’92 was to attract high level research papers and to encourage interchange of ideas among the areas of coding theory and related fields which share the same tools for applications in the science of communications, theoretical computer science, software engineering and mathematics. Then the book is characterized by a very broad spectrum, ranging from combinatories or algebraic geometry to implementation of coding algorithms. There were about 90 participants to the conference, from the academic and industrial worlds; 53 conferences were selected. The submitted full-papers were separately refereed for publication by at least two international referees.

Potential Theory on Infinite Networks - Paolo M. Soardi 2006-11-15

The aim of the book is to give a unified approach to new developments in discrete potential theory and infinite network theory. The author confines himself to the finite energy case, but this does not result in loss of complexity. On the contrary, the functional analytic machinery may be used in analogy with potential theory on Riemann manifolds. The book is intended for researchers with interdisciplinary interests in one of the following fields: Markov chains, combinatorial graph theory, network theory, Dirichlet spaces, potential theory, abstract harmonic analysis, theory of boundaries.

Algebraic Geometry for Coding Theory and Cryptography - Everett W. Howe 2017-11-15

Covering topics in algebraic geometry, coding theory, and cryptography, this volume presents interdisciplinary group research completed for the February 2016 conference at the Institute for Pure and Applied Mathematics (IPAM) in cooperation with the Association for Women in Mathematics (AWM). The conference gathered research communities across disciplines to share ideas and problems in their fields and formed small research groups made up of graduate students, postdoctoral researchers, junior faculty, and group leaders who designed and led the projects. Peer reviewed and revised, each of this volume's five papers achieves the conference’s goal of using algebraic geometry to address a problem in either coding theory or cryptography. Proposed variants of the McEliece cryptosystem based on different constructions of codes, constructions of locally recoverable codes from algebraic curves and surfaces, and algebraic approaches to the multicast network coding problem are only some of the topics covered in this volume. Researchers and graduate-level students interested in the interactions between algebraic geometry and both coding theory and cryptography will find this volume valuable.

Finite Geometries - Aart Blokhuis 2001-07-31

When? These are the proceedings of Finite Geometries, the Fourth Isle of Thorns Conference, which took place from Sunday 16 to Friday 21 July, 2000. It was organised by the editors of this volume. The Third Conference in 1990 was published as Advances in Finite Geometries and Designs by Oxford University Press and the Second Conference in 1980 was published as Finite Geometries and Designs by Cambridge University Press. The main speakers were A. R. Calderbank, P. J. Cameron, C. E. Praeger, B. Schmidt, H. Van Maldeghem. There were 64 participants and 42 contributions, all listed at the end of the volume. Conference web site http://www. maths. susx. ac. uk/Staff/JWPH/ Why? This collection of 21 articles describes the latest research and current state of the art in the following inter-linked areas: • combinatorial structures in finite projective and affine spaces, also known as Galois geometries, in which combinatorial objects such as blocking sets, spreads and partial spreads, ovoids, arcs and caps, as well as curves and hypersurfaces, are all of interest; • geometric and algebraic coding theory; • finite groups and incidence geometries, as in polar spaces, gener alized polygons and diagram geometries; • algebraic and geometric design theory, in particular designs which have interesting symmetric properties and difference sets, which play an important role, because of their close connections to both Galois geometry and coding theory.

Algebraic K-theory, Commutative Algebra, and Algebraic Geometry - R. Keith Dennis 1992

In the mid-1960s, several Italian mathematicians began to study the connections between classical arguments in commutative algebra and algebraic geometry, and the contemporaneous development of algebraic K-theory in the U.S. These connections were exemplified by the work of Andreotti-Bombieri, Salmon, and Traverso on seminormality, and by Bass-Murthy on the Picard groups of polynomial rings. Interactions proceeded far beyond this initial point to encompass Chow groups of singular varieties, complete intersections, and applications of K-theory to arithmetic and real geometry. This volume contains the proceedings from a U.S.-Italy Joint Summer Seminar, which focused on this circle of ideas. The conference, held in June 1989 in Santa Margherita Ligure, Italy, was supported jointly by the Consiglio Nazionale delle Ricerche and the National Science Foundation. The book contains contributions from some of the leading experts in this area.

Finite Fields and Applications - Gary L. Mullen 2008

This volume contains the proceedings of the Eighth International Conference on Finite Fields and Applications, held in Melbourne, Australia, July 9-13, 2007. It contains 5 invited survey papers as well as original research articles covering various theoretical and applied areas related to finite fields.Finite fields, and the computational and algorithmic aspects of finite field problems, continue to grow in importance and interest in the mathematical and computer science communities because of their applications in so many diverse areas. In particular, finite fields now play very important roles in number theory, algebra, and algebraic geometry, as well as in computer science, statistics, and engineering. Areas of application include algebraic coding theory, cryptology, and combinatorialdesign theory.

Algebraic Function Fields and Codes - Henning Stichtenoth 2009-02-11

This book links two subjects: algebraic geometry and coding theory. It uses a novel approach based on the theory of algebraic function fields. Coverage includes the Riemann-Rock theorem, zeta functions and Hasse-Weil's theorem as well as Goppa' s algebraic-geometric codes and other traditional codes. It will be useful to researchers in algebraic geometry and coding theory and computer scientists and engineers in information transmission.

Discrete Geometry and Algebraic Combinatorics - Alexander Barg 2014-08-28

This volume contains the proceedings of the AMS Special Session on Discrete Geometry and Algebraic Combinatorics held on January 11, 2013, in San Diego, California. The collection of articles in this volume is devoted to packings of metric spaces and related questions, and contains new results as well as surveys of some areas of discrete geometry. This volume consists of papers on combinatorics of transportation polytopes, including results on the diameter of graphs of such polytopes; the generalized Steiner problem and related topics of the minimal fillings theory; a survey of distance graphs and graphs of diameters, and a group of papers on applications of algebraic combinatorics to packings of metric spaces including sphere packings and topics in coding theory. In particular, this volume presents a new approach to duality in sphere packing based on the Poisson summation formula, applications of semidefinite programming to spherical codes and equiangular lines, new results in list decoding of a family of algebraic codes, and constructions of bent and semi-bent functions.

Algebraic Geometric Codes: Basic Notions - Michael Tsfasman 2022-04-15

The book is devoted to the theory of algebraic geometric codes, a subject formed on the border of several domains of mathematics. On one side there are such classical areas as algebraic geometry and number theory; on the other, information transmission theory, combinatorics, finite geometries, dense packings, etc. The authors give a unique perspective on the subject. Whereas most books on coding theory build up coding theory from within, starting from elementary concepts and almost always finishing without reaching a certain depth, this book constantly looks for interpretations that connect coding theory to algebraic geometry and number theory. There are no prerequisites other than a standard algebra graduate course. The first two chapters of the book can serve as an introduction to coding theory and algebraic geometry

respectively. Special attention is given to the geometry of curves over finite fields in the third chapter. Finally, in the last chapter the authors explain relations between all of these: the theory of algebraic geometric codes.

3rd International Castle Meeting on Coding Theory and Applications - Joaquim Borges 2011-09-05

In 1999, a conference called International Meeting on Coding Theory and Cryptography took place at Mota Castle in Castilia (Spain). The conference had great acceptance within the community of coding theory and cryptography researchers. At that moment, and also nowadays, there are not many international workshops about these topics, at least if we compare with other mathematical and engineering subjects of research. Therefore, the general desire was to continue with more Castle Meetings. However, the following conference did not take place until 2008. In that case, the conference was called II International Castle Meeting on Coding Theory and Applications allowing more topics related to coding theory apart from cryptography. Such conference took place at Mota Castle again and the number of participants was similar to the previous edition. The present edition of the conference, called III International Castle Meeting on Coding Theory and Applications has been held at Cardona Castle in Catalonia (Spain). The number of communications has increased and a number of selected papers will be published in a special issue of the journal Designs, Codes and Cryptography. As in the previous editions, the conference has been of high level with notorious invited speakers and scientic committee members.

Arithmetic, Geometry, Cryptography, and Coding Theory 2009 - David R. Kohel 2010

This volume contains the proceedings of the 12th conference on Arithmetic, Geometry, cryptography and coding Theory, held in Marseille, France from March 30 to April 3, 2009, as well as the first Geocrypt conference, held in pointe-a-pitre, guadeloupe, from April 27 to may 1, 2009, and the European science Foundation exploratory workshop on curves, coding Theory, and Cryptography, held in Marseille, France from March 25 to 29, 2009. The articles Contained in this volume come from three related symposia organized by the group Arithmetique et Theorie de I' Information in Marseille. The topics cover arithmetic properties of curves and higher dimensional varieties with applications to codes and cryptography.

Surveys on Recent Developments in Algebraic Geometry - Izzet Coskun 2017-07-12

The algebraic geometry community has a tradition of running a summer research institute every ten years. During these influential meetings a large number of mathematicians from around the world convene to overview the developments of the past decade and to outline the most fundamental and far-reaching problems for the next. The meeting is preceded by a Bootcamp aimed at graduate students and young researchers. This volume collects ten surveys that grew out of the Bootcamp, held July 6–10, 2015, at University of Utah, Salt Lake City, Utah. These papers give succinct and thorough introductions to some of the most important and exciting developments in algebraic geometry in the last decade. Included are descriptions of the striking advances in the Minimal Model Program, moduli spaces, derived categories, Bridgeland stability, motivic homotopy theory, methods in characteristic and Hodge theory. Surveys contain many examples, exercises and open problems, which will make this volume an invaluable and enduring resource for researchers looking for new directions.

Finite Fields and their Applications - James A. Davis 2020-10-26

The volume covers wide-ranging topics from Theory: structure of finite fields, normal bases, polynomials, function fields, APN functions. Computation: algorithms and complexity, polynomial factorization, decomposition and irreducibility testing, sequences and functions. Applications: algebraic coding theory, cryptography, algebraic geometry over finite fields, finite incidence geometry, designs, combinatorics, quantum information science.

Coding Theory, Cryptography and Related Areas - Johannes Buchmann 2012-12-06

A series of research papers on various aspects of coding theory, cryptography, and other areas, including new and unpublished results on the subjects. The book will be useful to students, researchers, professionals, and tutors interested in this area of research.

Algebraic Geometry in Coding Theory and Cryptography - Harald Niederreiter 2009-09-21

This textbook equips graduate students and advanced undergraduates with the necessary theoretical tools for applying algebraic geometry to information theory, and it covers primary applications in coding theory and cryptography. Harald Niederreiter and Chaoping Xing provide the first detailed discussion of the interplay between nonsingular projective curves and algebraic function fields over finite fields. This interplay is fundamental to research in the field today, yet until now no other textbook has featured complete proofs of it. Niederreiter and Xing cover classical applications like algebraic-geometry codes and elliptic-curve cryptosystems as well as material not treated by other books, including function-field codes, digital nets, code-based public-key cryptosystems, and frameproof codes. Combining a systematic development of theory with a broad selection of real-world applications, this is the most comprehensive yet accessible introduction to the field available. Introduces graduate students and advanced undergraduates to the foundations of algebraic geometry for applications to information theory Provides the first detailed discussion of the interplay between projective curves and algebraic function fields over finite fields Includes applications to coding theory and cryptography Covers the latest advances in algebraic-geometry codes Features applications to cryptography not treated in other books

Arithmetic, Geometry, Cryptography and Coding Theory - Stéphane Ballet 2021-07-01

This volume contains the proceedings of the 17th International Conference on Arithmetic, Geometry, Cryptography and Coding Theory (AGC2T-17), held from June 10–14, 2019, at the Centre International de Rencontres Mathématiques in Marseille, France. The conference was dedicated to the memory of Gilles Lachaud, one of the founding fathers of the AGC2T series. Since the first meeting in 1987 the biennial AGC2T meetings have brought together the leading experts on arithmetic and algebraic geometry, and the connections to coding theory, cryptography, and algorithmic complexity. This volume highlights important new developments in the field.