Algebra Oggi

Algebra
Episodes in the History of Modern Algebra (1800-1950)
Il giornale letterario scientifico modenese raccolta periodica di produzioni scelte originali italiane e straniere inedite in Italia
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Matematica: insegnamento e computer algebra
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Ramified Surfaces
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The American Mathematical Monthly
And Yet It Is Heard
Aritmetica, geometria, algebra oggi
Giornale letterario scientifico modenese

Domanda della Regia Università di Catania al Re Vittorio Emmanuele e al parlamento italiano in Torino per essere uno degli archiginnasii d'Italia
Algoritmi e basi della programmazione
I numeri magici di Fibonacci
Reti logiche
Topics in Functional Analysis and Algebra
Bollettino Della Unione Matematica Italiana
Mathematicians in Bologna 1861–1960
Logic and Algebra of Specification
Invariant Algebras and Geometric Reasoning
Logic, Algebra, and Computation
Hindu Mathematics
Le scarpe rosse
Principii fondamentali meccanici, tecnici, e pratici della Teoria delle Macchine, con Manuale pratico. Tomo primo
L'eredità arabo-islamica nelle scienze e nelle arti del calcolo dell'Europa medievale
Equilibrio perfetto. Le grandi equazioni della scienza moderna
Italian Mathematics Between the Two World Wars
The Dialectic Relation Between Physics and Mathematics in the XIXth Century
Calcolo completo dei numeri romani ossia Mare delle matematiche
History of Mathematics. Algebra

SWANSON

Algebra

This book commemorate

s the 150th birthday of Corrado Segre, one of the founders of the Italian School of Algebraic Geometry and a crucial figure in the history of Algebraic Geometry. It is the outcome of a conference held in Turin, Italy. One of the book's most unique features is the inclusion of a previously unpublished manuscript by Corrado Segre, together with a scientific commentary. Representing a prelude to Segre's seminal 1894 contribution on the theory of algebraic curves, this manuscript and other important archival sources included in the essays shed new light on the eminent role he played at the international level. Including both survey articles and original research papers, the book is divided into three parts: section one focuses on the implications of Segre's work in a historic light, while section two presents new results in his field, namely Algebraic Geometry. The third part features Segre's unpublished notebook: Sulla Geometria Sugli Enti Algebrici Semplicement e Infiniti (1890-1891). This volume will appeal to scholars in the History of Mathematics, as well as to researchers in the current subfields of Algebraic Geometry. *Episodes in*

the History of Modern Algebra (1800-1950) Routledge This book describes Italian mathematics in the period between the two World Wars. It analyzes the development by focusing on both the interior and the external influences. Italian mathematics in that period was shaped by a colorful array of strong personalities who concentrated their efforts on a select number of fields and won international recognition and respect in an incredibly short time. Consequently, Italy was considered a third mathematical power after France and Germany.
Il giornale letterario scientifico modenese raccolta periodica di produzioni scelte originali italiane e straniere inedite in Italia Springer
“Le scarpe rosse, impressioni di cucina” ovvero una mamma col pancione si racconta attraverso la sua cucina spontanea, imprevedibile e imperfetta come lei ama definirla. Ricette semplici e ricche di gusto che fra una bruschetta e un piatto di gnocchi raccontano la vita di tutti i giorni, semplice, appagante e felice.. Assaggiala!
I grandi matematici Springer Science & Business Media
An incredible season for algebraic

geometry flourished in Italy between 1860, when Luigi Cremona was assigned the chair of Geometria Superiore in Bologna, and 1959, when Francesco Severi published the last volume of the treatise on algebraic systems over a surface and an algebraic variety. This century-long season has had a prominent influence on the evolution of complex algebraic geometry - both at the national and international levels - and still inspires modern research in the area. "Algebraic geometry in Italy between tradition and future" is a collection of contributions aiming at presenting some of these powerful ideas and their connection to contemporary and, if possible, future developments, such as Cremonian transformations, birational classification of high-dimensional varieties starting from Gino Fano, the life and works of Guido Castelnuovo, Francesco Severi's mathematical library, etc. The presentation is enriched by the viewpoint of various researchers of the history of mathematics, who describe the cultural milieu and tell about the bios of some of the most famous mathematicians of those times.

Zero. Storia di una cifra

Springer Science & Business Media

The book offers an extensive study on the convoluted history of the research of algebraic surfaces, focusing for the first time on one of its characterizing curves: the branch curve. Starting with separate beginnings during the 19th century with descriptive geometry as well as knot theory, the book focuses on the 20th century, covering the rise of the Italian school of algebraic geometry between the 1900s till the 1930s (with Federigo Enriques, Oscar Zariski and Beniamino Segre, among others), the decline of its classical approach during the 1940s and the 1950s (with Oscar Chisini and his students), and the emergence of new approaches with Boris Moishezon's program of braid monodromy factorization. By focusing on how the research on one specific curve changed during the 20th century, the author provides insights concerning the dynamics of epistemic objects and configurations of mathematical research. It is in this sense that the book offers to take the branch curve as a cross-section through the history of algebraic geometry of the 20th century, considering this curve as an intersection of

several research approaches and methods. Researchers in the history of science and of mathematics as well as mathematicians will certainly find this book interesting and appealing, contributing to the growing research on the history of algebraic geometry and its changing images.
L'enigma di Fermat Il Saggiatore
This book describes two stages in the historical development of the notion of mathematical structures: first, it traces its rise in the context of algebra from the mid-1800s to 1930, and then considers attempts to formulate elaborate theories after 1930 aimed at elucidating, from a purely mathematical perspective, the precise meaning of this idea.
When Form Becomes Substance Springer Science & Business Media
Capostipite di un nuovo genere di biografie, in cui si uniscono storie personali e informazione scientifica, questo saggio ormai divenuto un classico presenta in maniera mirabile il lato umano della matematica, e aiuta così ad avvicinare una disciplina che spesso sembra ermetica e lontana. Attraverso il racconto delle vite di grandi pensatori quali Cartesio, Fermat, Pascal, Newton, Poincaré, Eric

Bell si è proposto di far rivivere ai lettori le emozioni, gli affanni e le difficoltà che si celano dietro le loro grandi conquiste scientifiche. Il risultato è un'opera affascinante e coinvolgente: un esempio ineguagliato di storiografia della scienza che ci permette di rileggere l'evoluzione di una branca fondamentale del sapere come una grande avventura culturale e umana.

Aritmetica
American Mathematical Soc.
Senza lo zero, la matematica come la conosciamo non esisterebbe. Ma qual è l'origine di questo simbolo che rappresenta il nulla? Quando fu usato la prima volta? E quali conseguenze ha portato nel nostro modo di contare e pensare? Robert Kaplan, in un viaggio sorprendente nell'evoluzione della matematica, ci racconta tutto della sua storia. Ignoto ai greci e ai romani, lo zero giunse in Occidente nel Medioevo attraverso gli arabi, che a loro volta ne avevano appreso la nozione dagli indiani. Poi, con i grandi rivoluzionari della matematica moderna, assunse nuovi significati, fino a conquistare un ruolo centrale nella nostra stessa visione dell'universo. Al punto che, come ci ricorda Kaplan, "guardate attraverso lo

zero e vedrete il mondo. Esso consente di mettere a fuoco il maestoso, organico sviluppo della matematica, e questa, a sua volta, la natura complessa della realtà". *Calcolo completo dei numeri romani ossia Mare delle matematiche ritrovato da Stefano Maria abb. Silvestrelli di Toscanella* Bur The aim of this book is to analyse historical problems related to the use of mathematics in physics as well as to the use of physics in mathematics and to investigate Mathematical Physics as precisely the new discipline which is concerned with this dialectical link itself. So the main question is: When and why did the tension between mathematics and physics, explicitly practised at least since Galileo, evolve into such a new scientific theory? The authors explain the various ways in which this science allowed an advanced mathematical modelling in physics on the one hand, and the invention of new mathematical ideas on the other hand. Of course this problem is related to the links between institutions, universities, schools for engineers, and industries, and so it has social implications as well. The link by which physical ideas had influenced the world of

mathematics was not new in the 19th century, but it came to a kind of maturity at that time. Recently, much historical research has been done into mathematics and physics and their relation in this period. The purpose of the Symposium and this book is to gather and re-evaluate the current thinking on this subject. It brings together contributions from leading experts in the field, and gives much-needed insight in the subject of mathematical physics from a historical point of view.

Changing Images in Mathematics

Springer Nature

The demand for more reliable geometric computing in robotics, computer vision and graphics has revitalized many venerable algebraic subjects in mathematics OCo among them, GrassmannOC oCayley algebra and Geometric Algebra. Nowadays, they are used as powerful languages for projective, Euclidean and other classical geometries. This book contains the author and his collaborators' most recent, original development of GrassmannOC oCayley algebra and Geometric Algebra and their applications in automated reasoning of classical geometries. It includes two

of the three advanced invariant algebras OCo Cayley bracket algebra, conformal geometric algebra, and null bracket algebra OCo for highly efficient geometric computing. They form the theory of advanced invariants, and capture the intrinsic beauty of geometric languages and geometric computing. Apart from their applications in discrete and computational geometry, the new languages are currently being used in computer vision, graphics and robotics by many researchers worldwide. Sample Chapter(s). Chapter 1: Introduction (252 KB). Contents: Projective Space, Bracket Algebra and GrassmannOCoCayley Algebra; Projective Incidence Geometry with Cayley Bracket Algebra; Projective Conic Geometry with Bracket Algebra and Quadratic Grassmann-Cayley Algebra; Inner-product Bracket Algebra and Clifford Algebra; Geometric Algebra; Euclidean Geometry and Conformal GrassmannOCoCayley Algebra; Conformal Clifford Algebra and Classical Geometries. Readership: Graduate students in discrete and computational geometry, and

computer mathematics; mathematicians and computer scientists.

From Classical to Modern Algebraic Geometry

Springer Science & Business Media

This book is intended as a basic text for a one year course in algebra at the graduate level or as a useful reference for mathematicians and professionals who use higher-level algebra. This book successfully addresses all of the basic concepts of algebra. For the new edition, the author has added exercises and made numerous corrections to the text. From MathSciNet's review of the first edition: "The author has an impressive knack for presenting the important and interesting ideas of algebra in just the "right" way, and he never gets bogged down in the dry formalism which pervades some parts of algebra."

Calcolo completo dei numeri romani, ossia Mare delle Matematiche ritrovato ... Seconda edizione arricchita di nuove illustrazioni ed aggiunte

Springer Science & Business Media

Includes section "Recent publications."

Matematica: insegnamento e computer algebra

Booksprint

Per tracciare la storia del calcolo, e in

particolare di quello automatico, è necessario ricostruire i principi e i concetti matematici che ne rappresentano il presupposto: questi affondano le proprie radici anche in lontane realtà geografiche e culturali e, una volta entrati in contatto con il mondo occidentale, sono stati alla base della ripresa delle discipline matematiche nel basso Medioevo. L'evoluzione è stata determinata anche dall'importante contributo della cultura scientifica arabo-islamica, che, soprattutto attraverso l'opera dello scienziato al-Khawarizmi, ha rappresentato un vitale presupposto al progresso dell'aritmetica, dell'algebra ed in genere del calcolo, che nei secoli immediatamente successivi avrebbero conosciuto sia una straordinaria crescita di importanza nell'ambito delle scienze teoriche ed applicate, sia una propagazione capillare in tutta Europa. Nel presente lavoro si tratteggia perciò la storia dell'aritmetica a partire dalle teorie dei numeri alto medievali (Marziano Capella, Cassiodoro, Boezio) e, dopo aver descritto gli albori della notazione posizionale in India, se ne presenta la diffusione nel mondo islamico grazie alla

figura di al-Khawarizmi. Vengono poi ripercorsi i vari momenti della comparsa in Occidente dei numerali indo-arabici e della loro adozione in varie versioni grafiche; lungo il filo rosso dell'attività di traduzione dei testi arabi (con particolare riferimento alla scuola di Toledo, a Roberto di Chester ed a Gerardo da Cremona) e della successiva tradizione manoscritta latina, si delinea il contributo di molte figure di primo e di secondo piano nella storia della matematica, come Leonardo Fibonacci da Pisa, Sacrobosco, Alexandre de Villedieu, Giordano Nemorario, Regiomontano , Piero della Francesca, Luca Pacioli ed i molti altri che prima in latino, poi nelle lingue nazionali, a livello accademico o nelle scuole d'abaco, hanno divulgato in Europa le tecniche di calcolo di origine araba.

Modern Algebra and the Rise of Mathematical Structures Bur

For some years, specification of software and hardware systems has been influenced not only by algebraic methods but also by new developments in logic. These new developments in logic are partly based on the use of algorithmic techniques in deduction and

proving methods, but are alsodue to new theoretical advances, to a great extent stimulated by computer science, which have led to new types of logic and new logical calculi. The new techniques, methods and tools from logic, combined with algebra-based ones, offer very powerful and useful tools for the computer scientist, which may soon become practical for commercial use, where, in particular, more powerful specification tools are needed for concurrent and distributed systems. This volume contains papers based on lectures by leading researchers which were originally given at an international summer school held in Marktoberdorf in 1991. The papers aim to give a foundation for combining logic and algebra for the purposes of specification under the aspects of automated deduction, proving techniques, concurrency and logic, abstract data types and operational semantics, and constructive methods.

Algebraic Geometry between Tradition and Future

Springer Nature

Esiste oggi un potente strumento didattico che può essere utile per rinnovare contenuti e metodi dell'insegnam

ento: ora che la COMUPTER ALGEBRA è disponibile su calcolatrici di piccole dimensioni, l'insegnante e lo studente hanno l`opportunità di rendere il proprio insegnamento - apprendimento più efficace. Questo libro mostra percorsi didattici, provati in classe nell'ambito della sperimentazione LABCLASS del M.P.I., che, partendo da attività di ricerca sperimentale, hanno lo scopo di rafforzare la valenza semantica degli oggetti matematici e innestare su un terreno più solido definizioni e teoremi. Il volume è destinato ai docenti delle scuole medie superiori e dell'università e agli studenti curiosi di 'fare' matematica non solo con carta e penna.

Ramified Surfaces
Springer Science & Business Media

The Marktoberdorf Summer Schools on Informatics were started in 1970, with the intention to convene every second or third year a group of top researchers in computing, devoted to preach their most recent results to an elite of advanced students - young and most promising people - and prepared to stand their questions, criticism and suggestions. The themes of these Advanced Study In stitutes under

the sponsorship of the NATO Scientific Affairs Division varied slightly over the years, oscillating more or less around Programming Methodo logy, as the following list shows: 1970 Data Structures and Computer Systems 1971 Program Structures and Fundamental Concepts of Programming 1973 Structured Programming and Programmed Structures 1975 Language Hierarchies and Interfaces 1978 Program Construction 1981 Theoretical Foundations of Programming Methodology 1984 Control Flow and Data Flow: Concepts of Distributed Programming 1986 Logic of Programming and Calculi of Discrete Design 1988 Constructive Methods in Computing Science 1989 Logic, Algebra, and Computation Logic, Algebra, and Computation is the theme of the summer school to which this volume is devoted. It is the tenth in succession, but it is also the first in a new series (the "blue" series) that is intended to alternate in future with the traditional (the "red" series) arrangement; in fact the tenth summer school in the "red" series with the title "Programming and Mathematical Method" , held in 1990, was the subject of celebrating both its serial

number and the twenty years of Marktoberdorf Summer Schools altogether.
Queen's Papers in Pure and Applied Mathematics
Springer Science & Business Media
Tutti conoscono la "successione di Fibonacci": una sequenza di cifre nascosta in molti fenomeni naturali che da oltre ottocento anni affascina i matematici, e che si dice possa predire l'andamento dei mercati finanziari. Ma chi fu in realtà Fibonacci, considerato il maggiore matematico del Medioevo, che comprese per primo che le "nove figure indiane" e soprattutto zephirum, lo zero,avrebbero cambiato il mondo in cui viveva? In un affascinante viaggio che ripercorre la vita di questo genio intraprendente, Keith Devlin permette al lettore di riscoprire una figura cruciale e misteriosa del nostro passato, che con le sue ricerche e il suo Liber abbaci - il più importante testo di algebra del tempo che spiegava come adottare il sistema numerico indo-arabico - mostrò all'Europa i risvolti pratici e commerciali della matematica, e aprì così la strada all'ascesa del Vecchio continente verso il dominio scientifico ed economico mondiale.
The American Mathematical Monthly

Springer Science & Business Media
We bring into full light some excerpts on musical subjects which were until now scattered throughout the most famous scientific texts. The main scientific and musical cultures outside of Europe are also taken into consideration. The first and most important property to underline in the scientific texts examined here is the language they are written in. This means that our multicultural history of the sciences necessarily also becomes a review of the various dominant languages used in the different historical contexts. In this volume, the history of the development of the sciences is told as it happened in real contexts, not in an alienated ideal world.
And Yet It Is Heard
Birkhäuser
This interdisciplinary volume collects contributions from experts in their respective fields with as common theme diagrams. Diagrams play a fundamental role in the mathematical visualization and philosophical analysis of forms in space. Some of the most interesting and profound recent developments in contemporary sciences, whether in topology,

geometry, dynamic systems theory, quantum field theory or string theory, have been made possible by the introduction of new types of diagrams, which, in addition to their essential role in the discovery of new classes of spaces and phenomena, have contributed to enriching and clarifying the meaning of the operations, structures and properties that are at the heart of these spaces and phenomena. The volume gives a closer look at the scope and the nature of diagrams as constituents of mathematical and physical thought, their function in contemporary artistic work, and appraise, in particular, the actual importance of the diagrams of knots, of braids, of fields, of interaction, of strings in topology and geometry, in quantum physics and in cosmology, but also in theory of perception, in plastic arts and in philosophy. The editors carefully curated this volume to be an inspiration to students and researchers in philosophy, phenomenology, mathematics and the sciences, as well as artists, musicians and the general interested audience.

Aritmetica, geometria, algebra oggi

LED Edizioni Universitarie

The scientific personalities of Luigi

Cremona, Eugenio Beltrami, Salvatore Pincherle, Federigo Enriques, Beppo Levi, Giuseppe Vitali, Beniamino Segre and of several other mathematicians who worked in Bologna in the century 1861–1960 are examined by different authors, in some cases providing different view points. Most contributions in the volume are historical; they are reproductions of original documents or studies on an original work and its impact on later research. The achievements of other mathematicians are investigated for their present-day importance.