1. Record Nr. UNINA9910153279503321

Titolo	Absolute Arithmetic and $\mathbb F_1$-Geometry [[electronic resource] /] / Koen Thas
Pubbl/distr/stampa	Zuerich, Switzerland, : European Mathematical Society Publishing House, 2016
ISBN	3-03719-657-2
Descrizione fisica	1 online resource (397 pages)
Classificazione	05-xx11-xx13-xx14-xx
Altri autori (Persone)	ThasKoen <1977->
Soggetti	Combinatorics & graph theory Combinatorics Number theory Commutative rings and algebras Algebraic geometry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	The Weyl functor. Introduction to Absolute Arithmetic / Koen Thas -- Belian categories / Anton Deitmar -- The combinatorial-motivic nature of $\mathbb F_1$-schemes / Koen Thas -- A blueprinted view on $\mathbb F_1$-geometry / Oliver Lorscheid -- Absolute geometry and the Habiro topology / Lieven Le Bruyn -- Witt vectors, semirings, and total positivity / James Borger -- Moduli operad over $\mathbb F_1$ / Yuri I. Manin, Matilde Marcolli -- A taste of Weil theory in characteristic one / Koen Thas.
Sommario/riassunto	It has been known for some time that geometries over finite fields, their automorphism groups and certain counting formulae involving these geometries have interesting guises when one lets the size of the field go to 1. On the other hand, the nonexistent field with one element, $\mathbb F_1$, presents itself as a ghost candidate for an absolute basis in Algebraic Geometry to perform the Deninger-Manin program, which aims at solving the classical Riemann Hypothesis. This book, which is the first of its kind in the $\mathbb F_1$-world, covers several areas in $\mathbb F_1$-theory, and is divided into four main parts - Combinatorial Theory, Homological Algebra, Algebraic

Geometry and Absolute Arithmetic. Topics treated include the combinatorial theory and geometry behind $\mathbb F_1$, categorical foundations, the blend of different scheme theories over $\mathbb F_1$ which are presently available, motives and zeta functions, the Habiro topology, Witt vectors and total positivity, moduli operads, and at the end, even some arithmetic. Each chapter is carefully written by experts, and besides elaborating on known results, brand new results, open problems and conjectures are also met along the way. The diversity of the contents, together with the mystery surrounding the field with one element, should attract any mathematician, regardless of speciality.

2. Record Nr. UNISA996466663503316

Titolo	Complex Monge–Ampère Equations and Geodesics in the Space of Kähler Metrics [[electronic resource] /] / edited by Vincent Guedj
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2012
ISBN	3-642-23669-3
Edizione	[1st ed. 2012.]
Descrizione fisica	1 online resource (VIII, 310 p. 4 illus.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 2038
Classificazione	SI 850 MAT 146f MAT 322f MAT 354f MAT 537f 510
Disciplina	515/.7242
Soggetti	Functions of complex variables Differential geometry Partial differential equations Algebraic geometry Several Complex Variables and Analytic Spaces Differential Geometry Partial Differential Equations Algebraic Geometry Aufsatzsammlung
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa

Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	1.Introduction -- I. The Local Homogenious Dirichlet Problem.-2. Dirichlet Problem in Domains of Cn -- 3. Geometric Maximality -- II. Stochastic Analysis for the Monge-Ampère Equation -- 4. Probabilistic Approach to Regularity -- III. Monge-Ampère Equations on Compact Manifolds -- 5.The Calabi-Yau Theorem -- IV Geodesics in the Space of Kähler Metrics -- 6. The Riemannian Space of Kähler Metrics -- 7. MA Equations on Manifolds with Boundary -- 8. Bergman Geodesics.
Sommario/riassunto	The purpose of these lecture notes is to provide an introduction to the theory of complex Monge–Ampère operators (definition, regularity issues, geometric properties of solutions, approximation) on compact Kähler manifolds (with or without boundary). These operators are of central use in several fundamental problems of complex differential geometry (Kähler–Einstein equation, uniqueness of constant scalar curvature metrics), complex analysis and dynamics. The topics covered include, the Dirichlet problem (after Bedford–Taylor), Monge–Ampère foliations and laminated currents, polynomial hulls and Perron envelopes with no analytic structure, a self-contained presentation of Krylov regularity results, a modernized proof of the Calabi–Yau theorem (after Yau and Kolodziej), an introduction to infinite dimensional riemannian geometry, geometric structures on spaces of Kähler metrics (after Mabuchi, Semmes and Donaldson), generalizations of the regularity theory of Caffarelli–Kohn–Nirenberg–Spruck (after Guan, Chen and Blocki) and Bergman approximation of geodesics (after Phong–Sturm and Berndtsson). Each chapter can be read independently and is based on a series of lectures by R. Berman, Z. Blocki, S. Boucksom, F. Delarue, R. Dujardin, B. Kolev and A. Zeriahi, delivered to non-experts. The book is thus addressed to any mathematician with some interest in one of the following fields, complex differential geometry, complex analysis, complex dynamics, fully non-linear PDE's and stochastic analysis.