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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

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Geometry and Absolute Arithmetic. Topics treated include the combinatorial theory and geometry behind  $\ F_1$ , categorical foundations, the blend of different scheme theories over  $\ F_1$  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.