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   Collana   Ergebnisse der Mathematik und ihrer Grenzgebiete. 3. Folge / A Series
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   Soggetti   Algebraic geometry
                       Functions of complex variables
                       Algebraic Geometry
                       Several Complex Variables and Analytic Spaces

   Lingua di pubblicazione   Inglese

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   Note generali   Description based upon print version of record.

   Nota di bibliografia   Includes bibliographical references and index.

   Nota di contenuto   Rigid Geometry of Curves and Their Jacobians; Introduction; Chapter 1:
                       Classical Rigid Geometry; 1.1 Non-Archimedean Fields; 1.2 Restricted
                       Power Series; 1.3 Af noid Spaces; 1.4 The Maximum Principle; 1.5 Rigid
                       Analytic Spaces; 1.6 Coherent Sheaves; 1.7 Line Bundles; 1.8
                       Algebraization of Proper Rigid Analytic Curves; Chapter 2: Mumford
                       Curves; 2.1 Tate's Elliptic Curve; 2.2 Schottky Groups; 2.3 De nition and
                       Properties; 2.4 Skeletons; 2.5 Automorphic Functions; 2.6 Drinfeld's
                       Polarization; 2.7 Rigid Analytic Tori and Their Duals; 2.8 Jacobian
                       Variety of a Mumford Curve
                       2.9 Riemann's Vanishing TheoremChapter 3: Formal and Rigid
                       Geometry; 3.1 Canonical Reduction of Af noid Domains; 3.1.1 Functors
                       AK AK and AKAK; 3.1.2 Formal Analytic Spaces; 3.1.3 Finiteness
                       Theorem of Grauert-Remmert-Gruson; 3.2 Admissible Formal
                       Schemes; 3.3 Generic Fiber of Admissible Formal Schemes; 3.4 Reduced
                       Fiber Theorem; 3.4.1 Analytic Method of Grauert-Remmert-Gruson;
                       3.4.2 Elementary Method of Epp; 3.4.3 The Natural Approach; 3.5
                       Complements on Flatness; 3.6 Approximation in Smooth Rigid Spaces;
                       3.7 Compacti cation of Smooth Curve Fibrations; Chapter 4: Rigid
                       Analytic Curves

| Sommario/riassunto | This book presents some of the most important aspects of rigid geometry, namely its applications to the study of smooth algebraic curves, of their Jacobians, and of abelian varieties - all of them defined over a complete non-archimedean valued field. The text starts with a survey of the foundation of rigid geometry, and then focuses on a detailed treatment of the applications. In the case of curves with split rational reduction there is a complete analogue to the fascinating theory of Riemann surfaces. In the case of proper smooth group varieties the uniformization and the construction of abelian varieties are treated in detail. Rigid geometry was established by John Tate and was enriched by a formal algebraic approach launched by Michel Raynaud. It has proved as a means to illustrate the geometric ideas behind the abstract methods of formal algebraic geometry as used by Mumford and Faltings. This book should be of great use to students wishing to enter this field, as well as those already working in it. |