1. Record Nr. UNISA996202187503316

Titolo	Berkovich Spaces and Applications [[electronic resource] /] / edited by Antoine Ducros, Charles Favre, Johannes Nicaise
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-11029-2
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (XIX, 413 p. 18 illus.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 2119
Disciplina	516.3
Soggetti	Algebraic geometry Dynamics Ergodic theory Topological groups Lie groups Algebraic Geometry Dynamical Systems and Ergodic Theory Topological Groups, Lie Groups
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	Introduction to Berkovich analytic spaces -- Etale cohomology of schemes and analytic spaces -- Countability properties of Berkovich spaces -- Cohomological finiteness of proper morphisms in algebraic geometry: a purely transcendental proof, without projective tools -- Bruhat-Tits buildings and analytic geometry -- Dynamics on Berkovich spaces in low dimensions -- Compactifications of spaces of representations (after Culler, Morgan and Shalen).
Sommario/riassunto	We present an introduction to Berkovich’s theory of non-archimedean analytic spaces that emphasizes its applications in various fields. The first part contains surveys of a foundational nature, including an introduction to Berkovich analytic spaces by M. Temkin, and to étale cohomology by A. Ducros, as well as a short note by C. Favre on the topology of some Berkovich spaces. The second part focuses on applications to geometry. A second text by A. Ducros contains a new proof of the fact that the higher direct images of a coherent sheaf

under a proper map are coherent, and B. Rémy, A. Thuillier and A. Werner provide an overview of their work on the compactification of Bruhat-Tits buildings using Berkovich analytic geometry. The third and final part explores the relationship between non-archimedean geometry and dynamics. A contribution by M. Jonsson contains a thorough discussion of non-archimedean dynamical systems in dimension 1 and 2. Finally a survey by J.-P. Otal gives an account of Morgan-Shalen's theory of compactification of character varieties. This book will provide the reader with enough material on the basic concepts and constructions related to Berkovich spaces to move on to more advanced research articles on the subject. We also hope that the applications presented here will inspire the reader to discover new settings where these beautiful and intricate objects might arise.