

1. Record Nr.	UNINA9910437876103321
Autore	Bottazzini U (Umberto)
Titolo	Hidden harmony-geometric fantasies : the rise of complex function theory // Umberto Bottazzini, Jeremy Gray
Pubbl/distr/stampa	New York, : Springer Science, 2013
ISBN	1-4614-5725-4
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (xvii, 848 pages) : illustrations, portraits
Collana	Sources and Studies in the History of Mathematics and Physical Sciences, , 2196-8810
Altri autori (Persone)	GrayJeremy <1947->
Disciplina	515.909
Soggetti	Functions of complex variables Mathematical analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	List of Figures -- Introduction -- 1. Elliptic Functions -- 2. From real to complex -- 3. Cauch -- 4. Elliptic integrals -- 5. Riemann -- 6. Weierstrass -- 7. Differential equations -- 8. Advanced topics -- 9. Several variables -- 10. Textbooks.
Sommario/riassunto	Hidden Harmony—Geometric Fantasies describes the history of complex function theory from its origins to 1914, when the essential features of the modern theory were in place. It is the first history of mathematics devoted to complex function theory, and it draws on a wide range of published and unpublished sources. In addition to an extensive and detailed coverage of the three founders of the subject—Cauchy, Riemann, and Weierstrass—it looks at the contributions of great mathematicians from d'Alembert to Poincaré, and Laplace to Weyl. Select chapters examine the rise and importance of elliptic function theory, differential equations in the complex domain, geometric function theory, and the early years of complex function theory in several variables. Unique emphasis has been placed on the creation of a textbook tradition in complex analysis by considering some seventy textbooks in nine different languages. This book is not a mere sequence of disembodied results and theories, but offers a comprehensive picture of the broad cultural and social context in which the main players lived and worked by paying attention to the rise of mathematical schools and of contrasting national traditions. This work

is unrivaled for its breadth and depth, both in the core theory and its implications for other fields of mathematics. It is a major resource for professional mathematicians as well as advanced undergraduate and graduate students and anyone studying complex function theory.
