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Titolo	The Real and the Complex: A History of Analysis in the 19th Century // by Jeremy Gray
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-23715-2
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (XVI, 350 p. 71 illus.)
Collana	Springer Undergraduate Mathematics Series, , 1615-2085
Disciplina	515.9
Soggetti	Functions of complex variables Functions of real variables Mathematics History Functions of a Complex Variable Real Functions History of Mathematical Sciences
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 and index.
Nota di contenuto	Lagrange and foundations for the calculus -- Joseph Fourier -- Legendre -- Cauchy and continuity -- Cauchy: differentiation and integration -- Cauchy and complex functions to 1830 -- Abel -- Jacobi -- Gauss -- Cauchy and complex function theory, 1830-1857 -- Complex functions and elliptic integrals -- Revision -- Gauss, Green, and potential theory -- Dirichlet, potential theory, and Fourier series -- Riemann -- Riemann and complex function theory -- Riemann's later complex function theory -- Responses to Riemann's work -- Weierstrass -- Weierstrass's foundational results -- Revision { and assessment -- Uniform Convergence -- Integration and trigonometric series -- The fundamental theorem of the calculus -- The construction of the real numbers -- Implicit functions -- Towards Lebesgue's theory of integration -- Cantor, set theory, and foundations -- Topology -- Assessment.
Sommario/riassunto	This book contains a history of real and complex analysis in the nineteenth century, from the work of Lagrange and Fourier to the

origins of set theory and the modern foundations of analysis. It studies the works of many contributors including Gauss, Cauchy, Riemann, and Weierstrass. This book is unique owing to the treatment of real and complex analysis as overlapping, inter-related subjects, in keeping with how they were seen at the time. It is suitable as a course in the history of mathematics for students who have studied an introductory course in analysis, and will enrich any course in undergraduate real or complex analysis.
