1. Record Nr. UNINA9910254090003321

Autore	Viola Carlo
Titolo	An Introduction to Special Functions / / by Carlo Viola
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-41345-7
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (VIII, 168 p.)
Collana	La Matematica per il 3+2, , 2038-5722 ; ; 102
Disciplina	515.5
Soggetti	Functions of complex variables Functional analysis Functions of real variables Functions, Special Functions of a Complex Variable Functional Analysis Real Functions Special Functions Several Complex Variables and Analytic Spaces
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1 Picard’s Theorems -- 2 The Weierstrass Factorization Theorem -- 3 Entire Functions of Finite Order -- 4 Bernoulli Numbers and Polynomials -- 5 Summation Formulae -- 6 The Euler Gamma-Function -- 7 Linear Differential Equations -- 8 Hypergeometric Functions.
Sommario/riassunto	The subjects treated in this book have been especially chosen to represent a bridge connecting the content of a first course on the elementary theory of analytic functions with a rigorous treatment of some of the most important special functions: the Euler gamma function, the Gauss hypergeometric function, and the Kummer confluent hypergeometric function. Such special functions are indispensable tools in "higher calculus" and are frequently encountered in almost all branches of pure and applied mathematics. The only knowledge assumed on the part of the reader is an understanding of basic concepts to the level of an elementary course covering the

residue theorem, Cauchy's integral formula, the Taylor and Laurent series expansions, poles and essential singularities, branch points, etc. The book addresses the needs of advanced undergraduate and graduate students in mathematics or physics.