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Disciplina	515.24
Soggetti	Sequences (Mathematics) Differential equations Functions of complex variables Functions, Special Sequences, Series, Summability Ordinary Differential Equations Functions of a Complex Variable Special Functions
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Nota di contenuto	Avant-Propos -- Preface to the three volumes -- Preface to this volume -- Some elements about ordinary differential equations -- The first Painlevé equation -- Tritruncated solutions for the first Painlevé equation -- A step beyond Borel-Laplace summability -- Transseries and formal integral for the first Painlevé equation -- Truncated solutions for the first Painlevé equation -- Supplements to resurgence theory -- Resurgent structure for the first Painlevé equation -- Index.
Sommario/riassunto	The aim of this volume is two-fold. First, to show how the resurgent methods introduced in volume 1 can be applied efficiently in a non-linear setting; to this end further properties of the resurgence theory must be developed. Second, to analyze the fundamental example of the First Painlevé equation. The resurgent analysis of singularities is pushed all the way up to the so-called “bridge equation”, which concentrates all information about the non-linear Stokes phenomenon at infinity of the First Painlevé equation. The third in a series of three,

entitled *Divergent Series, Summability and Resurgence*, this volume is aimed at graduate students, mathematicians and theoretical physicists who are interested in divergent power series and related problems, such as the Stokes phenomenon. The prerequisites are a working knowledge of complex analysis at the first-year graduate level and of the theory of resurgence, as presented in volume 1. .

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