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Nota di contenuto	Preface -- Ludwig Prandtl's Boundary Layer Theory -- Asymptotic Approximations -- The Method of Matches Asymptotic Expansions and Its Generalizations -- Wendepunkte and Canards (Turning Points and Delayed Bifurcations) -- Two-timing, Geometric, and Multi-scale Methods -- A Simple Multi-scale Procedure for Both Oscillatory and Boundary Layer Problems -- References -- Index.
Sommario/riassunto	This engaging text describes the development of singular perturbations, including its history, accumulating literature, and its current status. While the approach of the text is sophisticated, the literature is accessible to a broad audience. A particularly valuable bonus are the historical remarks. These remarks are found throughout the manuscript. They demonstrate the growth of mathematical thinking on this topic by engineers and mathematicians. The book focuses on detailing how the various methods are to be applied. These are illustrated by a number and variety of examples. Readers are expected to have a working knowledge of elementary ordinary differential equations, including some familiarity with power series techniques, and of some advanced calculus. Dr. O'Malley has written a number of

books on singular perturbations. This book has developed from many of his works in the field of perturbation theory.

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