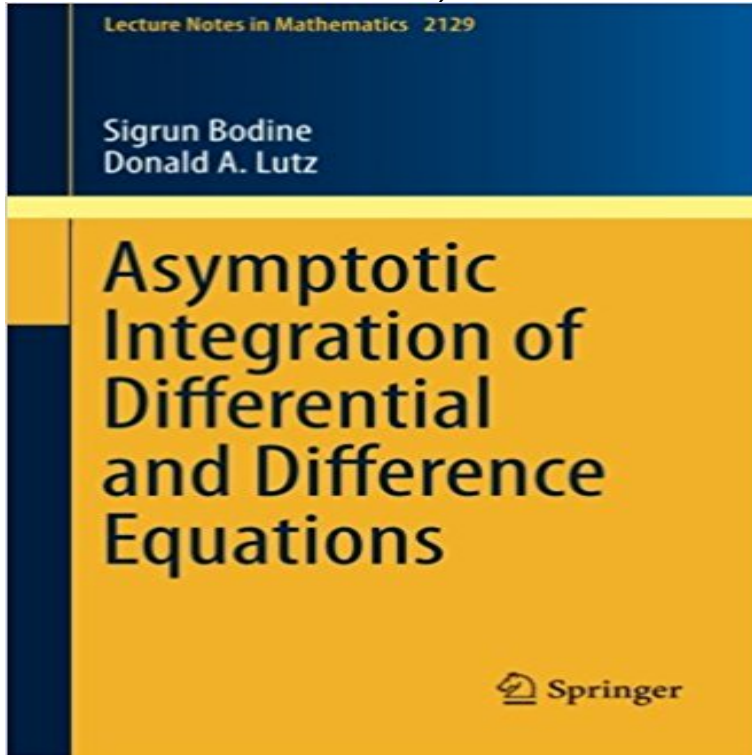


# Asymptotic Integration of Differential and Difference Equations (Lecture Notes in Mathematics)



This book presents the theory of asymptotic integration for both linear differential and difference equations. This type of asymptotic analysis is based on some fundamental principles by Norman Levinson. While he applied them to a special class of differential equations, subsequent work has shown that the same principles lead to asymptotic results for much wider classes of differential and also difference equations. After discussing asymptotic integration in a unified approach, this book studies how the application of these methods provides several new insights and frequent improvements to results found in earlier literature. It then continues with a brief introduction to the relatively new field of asymptotic integration for dynamic equations on time scales. *Asymptotic Integration of Differential and Difference Equations* is a self-contained and clearly structured presentation of some of the most important results in asymptotic integration and the techniques used in this field. It will appeal to researchers in asymptotic integration as well to non-experts who are interested in the asymptotic analysis of linear differential and difference equations. It will additionally be of interest to students in mathematics, applied sciences, and engineering. Linear algebra and some basic concepts from advanced calculus are prerequisites.

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