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Título: Principles Of Differential And Integral Equations

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Sinopsis

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In summary, the author has provided an elegant introduction to important topics in the theory of ordinary differential equations and integral equations.

--Mathematical Reviews

This book is intended for a one-semester course in differential and integral equations for advanced undergraduates or beginning graduate students, with a view toward preparing the reader for graduate-level courses on more advanced topics. There is some emphasis on existence, uniqueness, and the qualitative behavior of solutions. Students from applied mathematics, physics, and engineering will find much of value in this book.

The first five chapters cover ordinary differential equations. Chapter 5 contains a good treatment of the stability of ODEs. The next four chapters cover integral equations, including applications to second-order differential equations. Chapter 7 is a concise introduction to the important Fredholm theory of linear integral equations. The final chapter is a well-selected collection of fascinating miscellaneous facts about differential and integral equations.

The prerequisites are a good course in advanced calculus, some preparation in linear algebra, and a reasonable acquaintance with elementary complex analysis. There are exercises throughout the text, with the more advanced of them providing good challenges to the student.

Readership

Undergraduate and graduate students interested in differential and integral equations.

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