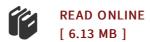




Ordinary Differential Equations: From Calculus to Dynamical Systems

By Virginia W. Noonburg

Mathematical Association of America. Hardback. Book Condition: new. BRAND NEW, Ordinary Differential Equations: From Calculus to Dynamical Systems, Virginia W. Noonburg, Techniques for studying ordinary differential equations (ODEs) have become part of the required toolkit for students in the applied sciences. This book presents a modern treatment of the material found in a first undergraduate course in ODEs. Standard analytical methods for first- and second-order equations are covered first, followed by numerical and graphical methods, and bifurcation theory. Higher dimensional theory follows next via a study of linear systems of first-order equations, including background material in matrix algebra. A phase plane analysis of two-dimensional nonlinear systems is a highlight, while an introduction to dynamical systems and an extension of bifurcation theory to cover systems of equations will be of particular interest to biologists. With an emphasis on real-world problems, this book is an ideal basis for an undergraduate course in engineering and applied sciences such as biology, or as a refresher for beginning graduate students in these areas.



Reviews

This book is definitely worth acquiring. I have go through and so i am certain that i will likely to read through again again in the future. Its been printed in an exceptionally basic way in fact it is only after i finished reading this publication in which actually altered me, change the way in my opinion.

-- Andres Bashirian

Comprehensive guide for publication fanatics. This really is for all who statte there had not been a well worth reading through. I discovered this ebook from my dad and i encouraged this book to find out.

-- Lacy Goldner