



Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series)

David Griffiths, Desmond J. Higham

Download now

[Click here](#) if your download doesn't start automatically

Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series)

David Griffiths, Desmond J. Higham

Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) David Griffiths, Desmond J. Higham

Numerical Methods for Ordinary Differential Equations is a self-contained introduction to a fundamental field of numerical analysis and scientific computation. Written for undergraduate students with a mathematical background, this book focuses on the analysis of numerical methods without losing sight of the practical nature of the subject.

It covers the topics traditionally treated in a first course, but also highlights new and emerging themes. Chapters are broken down into 'lecture' sized pieces, motivated and illustrated by numerous theoretical and computational examples.

Over 200 exercises are provided and these are starred according to their degree of difficulty. Solutions to all exercises are available to authorized instructors.

The book covers key foundation topics:

- o Taylor series methods
- o Runge--Kutta methods
- o Linear multistep methods
- o Convergence
- o Stability

and a range of modern themes:

- o Adaptive stepsize selection
- o Long term dynamics
- o Modified equations
- o Geometric integration
- o Stochastic differential equations

The prerequisite of a basic university-level calculus class is assumed, although appropriate background results are also summarized in appendices. A dedicated website for the book containing extra information can be found via www.springer.com

 [Download Numerical Methods for Ordinary Differential Equati ...pdf](#)

 [Read Online Numerical Methods for Ordinary Differential Equa ...pdf](#)

Download and Read Free Online Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) David Griffiths, Desmond J. Higham

From reader reviews:

Robert Crawford:

Have you spare time for a day? What do you do when you have considerably more or little spare time? Sure, you can choose the suitable activity for spend your time. Any person spent their very own spare time to take a wander, shopping, or went to the Mall. How about open or read a book eligible Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series)? Maybe it is to be best activity for you. You realize beside you can spend your time along with your favorite's book, you can better than before. Do you agree with its opinion or you have some other opinion?

Al Fraire:

Typically the book Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) will bring one to the new experience of reading any book. The author style to describe the idea is very unique. If you try to find new book to see, this book very suited to you. The book Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) is much recommended to you to study. You can also get the e-book from official web site, so you can quickly to read the book.

Melinda Brown:

Spent a free a chance to be fun activity to do! A lot of people spent their down time with their family, or their very own friends. Usually they doing activity like watching television, going to beach, or picnic from the park. They actually doing same thing every week. Do you feel it? Would you like to something different to fill your own free time/ holiday? Could possibly be reading a book might be option to fill your cost-free time/ holiday. The first thing that you ask may be what kinds of reserve that you should read. If you want to try out look for book, may be the book untitled Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) can be fine book to read. May be it may be best activity to you.

Monique Hightower:

The book untitled Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) contain a lot of information on this. The writer explains your girlfriend idea with easy approach. The language is very easy to understand all the people, so do definitely not worry, you can easy to read the item. The book was published by famous author. The author provides you in the new period of time of literary works. You can read this book because you can read on your smart phone, or device, so you can read the book throughout anywhere and anytime. If you want to buy the e-book, you can start their official web-site and order it. Have a nice read.

**Download and Read Online Numerical Methods for Ordinary
Differential Equations: Initial Value Problems (Springer
Undergraduate Mathematics Series) David Griffiths, Desmond J.
Higham #Z8XK3IWCR4V**

Read Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) by David Griffiths, Desmond J. Higham for online ebook

Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) by David Griffiths, Desmond J. Higham Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) by David Griffiths, Desmond J. Higham books to read online.

Online Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) by David Griffiths, Desmond J. Higham ebook PDF download

Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) by David Griffiths, Desmond J. Higham Doc

Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) by David Griffiths, Desmond J. Higham Mobipocket

Numerical Methods for Ordinary Differential Equations: Initial Value Problems (Springer Undergraduate Mathematics Series) by David Griffiths, Desmond J. Higham EPub