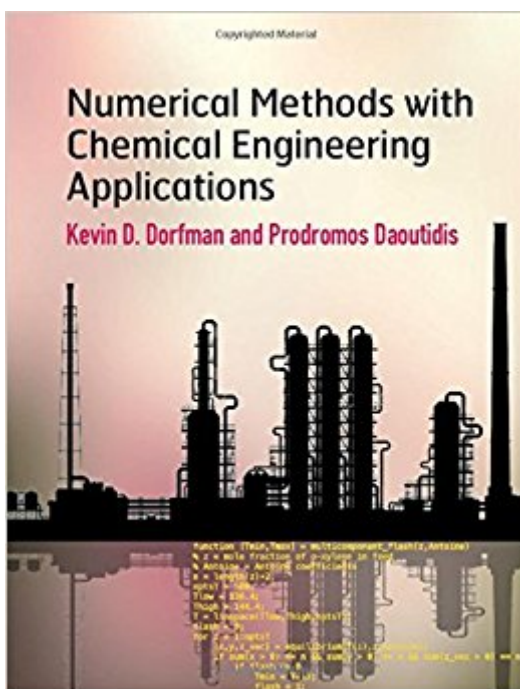


Ebook Directory
the best source of ebook

The book was found

Numerical Methods With Chemical Engineering Applications (Cambridge Series In Chemical Engineering)



Synopsis

Designed primarily for undergraduates, but also graduates and practitioners, this textbook integrates numerical methods and programming with applications from chemical engineering. Combining mathematical rigor with an informal writing style, it thoroughly introduces the theory underlying numerical methods, its translation into MATLAB programs, and its use for solving realistic problems. Specific topics covered include accuracy, convergence and numerical stability, as well as stiffness and ill-conditioning. MATLAB codes are developed from scratch, and their implementation is explained in detail, all while assuming limited programming knowledge. All scripts employed are downloadable, and built-in MATLAB functions are discussed and contextualised. Numerous examples and homework problems - from simple questions to extended case studies - accompany the text, allowing students to develop a deep appreciation for the range of real chemical engineering problems that can be solved using numerical methods. This is the ideal resource for a single-semester course on numerical methods, as well as other chemical engineering courses taught over multiple semesters.

Book Information

Series: Cambridge Series in Chemical Engineering

Hardcover: 511 pages

Publisher: Cambridge University Press; 1 edition (January 11, 2017)

Language: English

ISBN-10: 1107135117

ISBN-13: 978-1107135116

Product Dimensions: 7.4 x 1.1 x 9.7 inches

Shipping Weight: 2.7 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #230,033 in Books (See Top 100 in Books) #142 in [Books > Textbooks > Engineering > Chemical Engineering](#) #256 in [Books > Engineering & Transportation > Engineering > Chemical](#) #1734 in [Books > Science & Math > Chemistry](#)

Customer Reviews

'Dorfman and Daoutidis's new book is a welcome addition to the undergraduate chemical engineering textbook literature. It provides a very attractive combination of programming, applied mathematics and chemical engineering applications, and is written in an accessible style. The incorporation of example MATLAB codes will be very helpful to students.' Michael D. Graham,

Aimed primarily at chemical engineering undergraduates, this textbook covers the theory underlying numerical methods, its translation into MATLAB programs, and its use for solving realistic problems. Mathematically rigorous, yet accessible and assuming limited programming knowledge, it includes numerous examples and end-of-chapter homework problems, and is accompanied by an online solutions manual and downloadable MATLAB code.

[Download to continue reading...](#)

Numerical Methods with Chemical Engineering Applications (Cambridge Series in Chemical Engineering) Numerical and Statistical Methods for Bioengineering: Applications in MATLAB (Cambridge Texts in Biomedical Engineering) Numerical and Statistical Methods for Bioengineering (Cambridge Texts in Biomedical Engineering) Stochastic Models, Information Theory, and Lie Groups, Volume 2: Analytic Methods and Modern Applications (Applied and Numerical Harmonic Analysis) Chemical Process Safety: Fundamentals with Applications (3rd Edition) (Prentice Hall International Series in the Physical and Chemical Engineering Sciences) Numerical Methods in Biomedical Engineering Numerical Methods for Engineers (Civil Engineering) Numerical Methods in Geotechnical Engineering Applied Numerical Methods with MATLAB for Engineers and Scientists (Civil Engineering) Unit Operations of Chemical Engineering (7th edition)(McGraw Hill Chemical Engineering Series) Introduction to Chemical Engineering Thermodynamics (The McGraw-Hill Chemical Engineering Series) Fundamentals of Chemical Engineering Thermodynamics (Prentice Hall International Series in the Physical and Chemical Engineering Sciences) Basic Principles and Calculations in Chemical Engineering (8th Edition) (Prentice Hall International Series in the Physical and Chemical Engineering Sciences) Elements of Chemical Reaction Engineering (5th Edition) (Prentice Hall International Series in the Physical and Chemical Engineering Sciences) Essentials of Chemical Reaction Engineering (Prentice Hall International Series in Physical and Chemical Engineering) Fundamental Concepts and Computations in Chemical Engineering (Prentice Hall International Series in the Physical and Chemical Engineering Sciences) Cambridge Global English Stage 9 Workbook: for Cambridge Secondary 1 English as a Second Language (Cambridge International Examinations) Introduction to Biomaterials: Basic Theory with Engineering Applications (Cambridge Texts in Biomedical Engineering) Introduction to Medical Imaging: Physics, Engineering and Clinical Applications (Cambridge Texts in Biomedical Engineering) Fluid Mechanics for Chemical Engineers (UK Higher Education Engineering Chemical Engineering)

Contact Us

DMCA

Privacy

FAQ & Help