



Differential Equations and Linear Algebra (2nd Edition)

By Farlow, Jerry; Hall, James E.; McDill, Jean Marie; West, Beverly H.

Pearson, 2007. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service! Summary: 1 First-Order Differential Equations 1.1 Dynamical Systems: Modeling 1 1.2 Solutions and Direction Fields: Qualitative Analysis 11 1.3 Separation of Variables: Quantitative Analysis 25 1.4 Approximation Methods: Numerical Analysis 33 1.5 Picards Theorem: Theoretical Analysis 46 2 Linearity and Nonlinearity 2.1 Linear Equations: The Nature of Their Solutions 55 2.2 Solving the First-Order Linear Differential Equation 63 2.3 Growth and Decay Phenomena 73 2.4 Linear Models: Mixing and Cooling 80 2.5 Nonlinear Models: Logistic Equation 87 2.6 Systems of Differential Equations: A First Look 100 3 Linear Algebra 3.1 Matrices: Sums and Products 115 3.2 Systems of Linear Equations 130 3.3 The Inverse of a Matrix 146 3.4 Determinants and Cramers Rule 156 3.5 Vector Spaces and Subspaces 167 3.6 Basis and Dimension 177 4 Higher-Order Linear Differential Equations 4.1 The Harmonic Oscillator 195 4.2 Real Characteristic Roots 210 4.3 Complex Characteristic Roots 229 4.4 Undetermined Coefficients 244 4.5 Variation of Parameters 255 4.6 Forced Oscillations 261 4.7 Conservation and Conversion 274 5 Linear Transformations 5.1 Linear Transformations 285 5.2 Properties of Linear Transformations 300 5.3 Eigenvalues and Eigenvectors 311 5.4 Coordinates and Diagonalization...



READ ONLINE
[2.58 MB]

Reviews

Most of these publication is the perfect ebook accessible. It is amongst the most awesome publication i have got read through. You wont truly feel monotony at whenever you want of the time (that's what catalogs are for regarding in the event you request me).

-- **Prof. Edgar Kshlerin**

It is easy in study safer to comprehend. It can be writter in basic phrases and never confusing. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- **Emmitt Harber**