

# **Partial Differential Equations**

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# Partial Differential Equations



An all-in-one [Printable Version](#) is available. Partial differential equations may hurt your eyes and a computer monitor doesn't help, so printing is recommended.

## **The Front Cover**

## **Introduction to Partial Differential Equations**

## **Introductory Topics and Techniques**

- Parallel Plate Flow: Easy IC
- Parallel Plate Flow: Realistic IC
- Change of Variables
- The Laplacian and Laplace's Equation

## **Fundamentals**

- Introduction and Classifications
- Vector Spaces: Mathematic Playgrounds
- Nondimensionalization
- Details and Applications of Fourier Series

## **Numeric Methods**

- Finite Difference Method
- Method of Lines

## **Other Topics**

- Scale Analysis

