Math 153: Numerical Methods for

Partial Differential Equations

Catalog Description

153. Numerical Methods for Partial Differential Equations. (Formerly numbered 148A.) Lecture, three hours; discussion, one hour. Prerequisites: courses 151A-151B. Introduction to first- and second-order linear partial differential equations. Finite difference and finite element solution of elliptic, hyperbolic, and parabolic equations. Method of lines and Rayleigh-Ritz procedures. Concepts of stability and accuracy. Letter grading.

General Information

The numerical methods course for partial differential equations was introduced under the number 148A in the academic year 1993-94. It has been offered once a year, quarter to be determined. The course enrollments have been between 10 and 20 in recent years.

The numerical analysis of partial differential equations has many important applications. The area is one of the strengths of the research group in applied mathematics at UCLA.