

[DOWNLOAD](#)

Hyperbolic Partial Differential Equations

By Peter D. Lax

American Mathematical Society. Paperback. Book Condition: new. BRAND NEW, Hyperbolic Partial Differential Equations, Peter D. Lax, The theory of hyperbolic equations is a large subject, and its applications are many: fluid dynamics and aerodynamics, the theory of elasticity, optics, electromagnetic waves, direct and inverse scattering, and the general theory of relativity. This book is an introduction to most facets of the theory and is an ideal text for a second-year graduate course on the subject. The first part deals with the basic theory: the relation of hyperbolicity to the finite propagation of signals, the concept and role of characteristic surfaces and rays, energy, and energy inequalities. The structure of solutions of equations with constant coefficients is explored with the help of the Fourier and Radon transforms. The existence of solutions of equations with variable coefficients with prescribed initial values is proved using energy inequalities. The propagation of singularities is studied with the help of progressing waves. The second part describes finite difference approximations of hyperbolic equations, presents a streamlined version of the Lax-Phillips scattering theory, and covers basic concepts and results for hyperbolic systems of conservation laws, an active research area today. Four brief appendices sketch topics that are important...



READ ONLINE
[7.37 MB]

Reviews

If you need to adding benefit, a must buy book. I could comprehended every thing out of this composed e pdf. I am just very happy to tell you that this is the greatest pdf i have study inside my individual existence and could be he finest publication for at any time.

-- Miss Laurie Waters IV

Most of these publication is the greatest publication offered. It is actually rally intriguing through reading period of time. You can expect to like just how the article writer create this publication.

-- Eddie Schuppe