

Approximate global convergence and adaptivity for coefficient inverse problems

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20419063&lokasi=lokal>

Abstrak

Approximate global convergence and adaptivity for coefficient inverse problems is the first book in which two new concepts of numerical solutions of multidimensional Coefficient Inverse Problems (CIPs) for a hyperbolic Partial Differential Equation (PDE) are presented. Two central questions for CIPs are addressed, how to obtain a good approximations for the exact solution without any knowledge of a small neighborhood of this solution, and how to refine it given the approximation.

The book also combines analytical convergence results with recipes for various numerical implementations of developed algorithms. The developed technique is applied to two types of blind experimental data, which are collected both in a laboratory and in the field. The result for the blind backscattering experimental data collected in the field addresses a real world problem of imaging of shallow explosives.