DESCRIPTION

This book studies methods to concretely address inverse problems. An inverse problem arises when the causes that produced a given effect must be determined or when one seeks to indirectly estimate the parameters of a physical system.

The author uses practical examples to illustrate inverse problems in physical sciences. He presents the techniques and specific methods chosen to solve inverse problems in a general domain of application, choosing to focus on a small number of methods that can be used in most applications.

This book is aimed at readers with a mathematical and scientific computing background. Despite this, it is a book with a practical perspective. The methods described are applicable, have been applied, and are often illustrated by numerical examples.

ABOUT THE AUTHOR

Michel Kern is a research scientist in the Serena group at the Inria Research Center in Paris, France.