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Autore	Li Jingzhi
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Sommario/riassunto	This book highlights the latest developments on the numerical methods for inverse scattering problems associated with acoustic, electromagnetic, and elastic waves. Inverse scattering problems are concerned with identifying unknown or inaccessible objects by wave probing data, which makes possible many industrial and engineering applications including radar and sonar, medical imaging, nondestructive testing, remote sensing, and geophysical exploration. The mathematical study of inverse scattering problems is an active field

of research. This book presents a comprehensive and unified mathematical treatment of various inverse scattering problems mainly from a numerical reconstruction perspective. It highlights the collaborative research outputs by the two groups of the authors yet surveys and reviews many existing results by global researchers in the literature. The book consists of three parts respectively corresponding to the studies on acoustic, electromagnetic, and elastic scatteringproblems. In each part, the authors start with in-depth theoretical and computational treatments of the forward scattering problems and then discuss various numerical reconstruction schemes for the associated inverse scattering problems in different scenarios of practical interest. In addition, the authors provide an overview of the existing results in the literature by other researchers. This book can serve as a handy reference for researchers or practitioners who are working on or implementing inverse scattering methods. It can also serve as a graduate textbook for research students who are interested in working on numerical algorithms for inverse scattering problems.