Inverse problems arise in practical situations like geophysical exploration, medical imaging, and nondestructive evaluation, where measurements made on the exterior of a body are used to determine properties of the inaccessible interior. In the last twenty years there have been substantial developments in the mathematical theory of inverse problems, and applications have expanded greatly. In this book, leading experts in the theory and applications of inverse problems offer extended surveys of such vital and rapidly expanding areas as microlocal analysis, reflection seismology, tomography, inverse scattering, and X-ray transforms.

Each article covers a particular topic or topics with an emphasis on accessibility and integration with the whole volume. Thus the collection can be at the same time stimulating to researchers and accessible to graduate students.

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