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	Nota di contenuto	Introduction -- Part I: Detection of Small Conductivity Inclusions; Transmission Problem; Generalized Polarization Tensors; Derivation of the Full Asymptotic Formula; Detection of Inclusions -- Part II: Detection of Small Elastic Inclusions; Transmission Problem for Elastostatics; Elastic Moment Tensor; Derivation of Small Asymptotic Expansions; Detections of Inclusions -- Part III: Detection of Small Electromagnetic Inclusions; Well-Posedness; Representation of Solutions; Derivation of Asymptotic Formulae; Reconstruction Algorithms -- Appendices -- References -- Index.
	Sommario/riassunto	This is the first book to provide a systematic exposition of promising techniques for the reconstruction of small inhomogeneities from boundary measurements. In particular, theoretical results and numerical procedures for the inverse problems for the conductivity equation, the Lamé system, as well as the Helmholtz equation are discussed in a readable and informative manner. The general approach developed in this book is based on layer potential techniques and modern asymptotic analysis of partial differential equations. The book is particularly suitable for graduate students in mathematics.