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	Sommario/riassunto	This book covers recent mathematical, numerical, and statistical approaches for multistatic imaging of targets with waves at single or multiple frequencies. The waves can be acoustic, elastic or electromagnetic. They are generated by point sources on a transmitter array and measured on a receiver array. An important problem in multistatic imaging is to quantify and understand the trade-offs between data size, computational complexity, signal-to-noise ratio, and resolution. Another fundamental problem is to have a shape representation well suited to solving target imaging problems from multistatic data. In this book the trade-off between resolution and stability when the data are noisy is addressed. Efficient imaging algorithms are provided and their resolution and stability with respect to noise in the measurements analyzed. It also shows that high-order polarization tensors provide an accurate representation of the target. Moreover, a dictionary-matching technique based on new invariants for

the generalized polarization tensors is introduced. Matlab codes for the main algorithms described in this book are provided. Numerical illustrations using these codes in order to highlight the performance and show the limitations of numerical approaches for multistatic imaging are presented.