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Nota di contenuto	Chapter 1 Overview -- Chapter 2 Mathematical analysis of RF imaging techniques and signal processing using wavelets -- Chapter 3 Parameter estimation of an Inhomogeneous Medium by Scattered Electromagnetic Fields Using Nonlinear Optics and Wavelets -- Chapter 4 THz Generation using Nonlinear Optics: Mathematical Analysis and Design of THz Antennas -- Chapter 5. Mathematical Analysis using Kinetic theory of Plasma and Vlasov equation -- Chapter 6. Quantum optics and Laser dynamics -- Appendices.
Sommario/riassunto	This book is on the nonlinear random medium analysis that includes subtopics of terahertz imaging, inverse scattering, plasmonics, quantum optics/communication laser modes, and terahertz photonic antennas. Here in this book, a mathematical framework is developed to analyze the impact of dimensions and chemical potential on nano-antenna channels.