

1. Record Nr.	UNINA9910751393903321
Autore	Khulbe Manisha
Titolo	Parameter Estimation of Nonlinear Random Medium by Scattered Electromagnetic Fields // by Manisha Khulbe, Harish Parthasarathy
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
ISBN	981-9958-40-7
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (160 pages)
Collana	Springer Tracts in Electrical and Electronics Engineering, , 2731-4219
Disciplina	530.141
Soggetti	Optics Quantum theory Nanophotonics Plasmonics Optics and Photonics Quantum Imaging and Sensing Nanophotonics and Plasmonics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
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.