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	Descrizione fisica	1 online resource (XIV, 222 p. 105 illus., 1 illus. in color.)
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	Nota di contenuto	Chapter 1. The surface elevation probability distribution of nonlinear random waves -- Chapter 2. Statistical distribution sea surface slopes -- Chapter 3. On the dispersion relation of sea waves -- Chapter 4. Modeling the shape of the pulse reflected from the sea surface -- Chapter 5. Effect of long surface waves on the Bregg scattering of microwave -- Chapter 6. Impact of physical and chemical characteristics of the sea water on Bregg scattering of the radio waves -- Chapter 7. Measurements of statistical moments of sea surface slopes based on satellite sensing data -- Chapter 8. Contrast of optical images at the slick-ripple interface -- Chapter 9. Variability of the ocean-atmosphere interface as a light reflecting surface -- Chapter 10. Physical limitations on the accuracy of remote detection of wind speed over the sea.
	Sommario/riassunto	This book considers the formation of the signal reflected from the sea surface when sensing in the radio and optical range. Currently, remote sensing from space is the main source of information about the processes taking place in the atmosphere and ocean. The correct interpretation of remote sensing data requires detailed information about the rough surface that forms the reflected signal. The first three chapters describe the statistical and spatial-temporal characteristics of the sea surface, focusing on the effects associated with the nonlinearity

of sea surface waves. The analysis makes extensive use of data obtained by the authors on a stationary oceanographic platform located on the Black sea. In the next seven chapters, the authors analyze how the nonlinearity of waves affects the formation of a signal reflected from the sea surface. This book is geared for advanced level research in the general subject area of remote sensing and modeling as they apply to the coastal marine environment. It is of value to scientists and engineers involved in the development of methods and instruments of remote sensing, analysis and interpretation of data. It is useful for students who have decided to devote themselves to the study of the oceans.