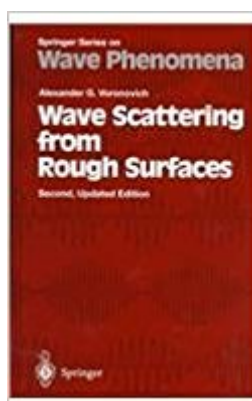The book was found

Wave Scattering From Rough Surfaces (Springer Series On Wave Phenomena)

Synopsis

Since the fIrst edition of this book was published in the 1994, the theory of wave scattering from rough surfaces has continued to develop intensively. The community of researchers working in this area keeps growing, which provides justifIcation for issuing this second edition. In preparing the second edition, I was challenged by the problem of seÃ Â- lecting new material from the many important results obtained recently. EvenÃ Â- tually, a new section was added to the central Chap. 6 of this book. This secÃ Â- tion describes the operator expansion technique put forward by M. Milder, which conforms well with the general approach adopted in the book and which to my mind is one of the most promising. Remote sensing of the terrain and ocean surface represents one of the most important and interesting challenges to the theory of wave scattering from rough surfaces. Rapid progress in electronics results in sensors with new capabilities. New powerful computers and data communication systems allow more sophisticated data processing techniques. What information about soil or air-sea interaction processes can be obtained from gigaflops of data streaming from air-or space-borne radars? To use this information efficiently, one cannot rely entirely on heuristic approaches and needs adequate theory. I hope that this book will contribute to progress in this important area.

Book Information

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Customer Reviews

Wave Scattering From Rough Surfaces deals with a theory that has many important practical applications. The monograph considers the subject by using the concept of scattering amplitude,

which allows one to simplify theoretical constructions and, more importantly, to consider different approaches within a single theoretical scheme. It emphasizes new theoretical approaches developed in this area during the last two decades. For the second edition, a special section was added to present one of the most powerful among recently developed methods, namely the operator expansion method.

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