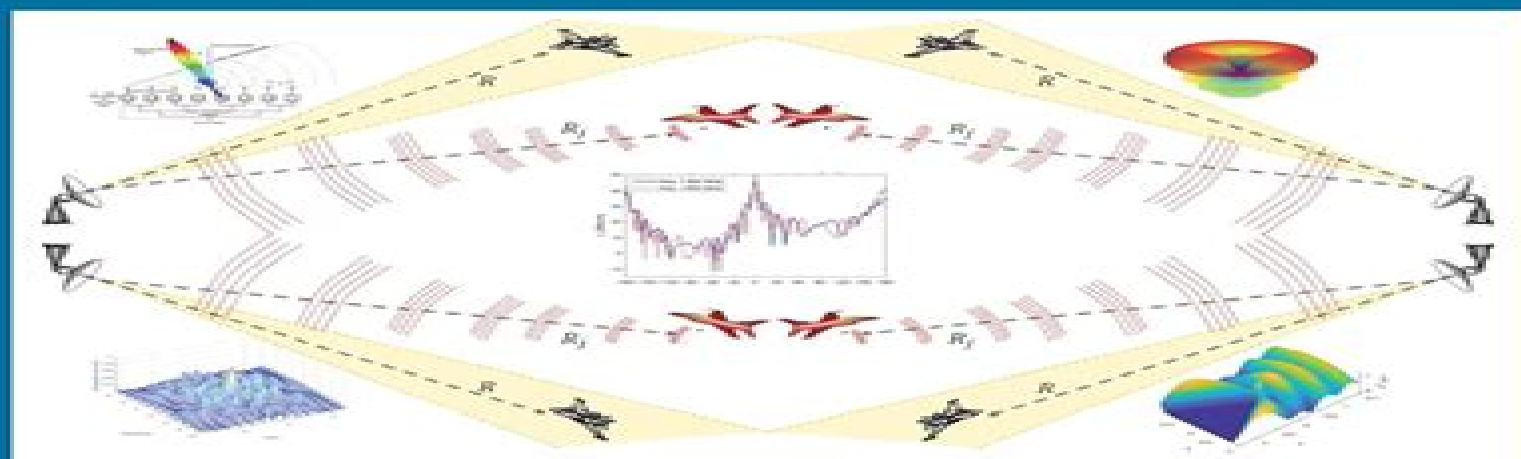


Advances in Applied Mathematics

HANDBOOK OF RADAR SIGNAL ANALYSIS



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Bassem R. Mahafza



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multiple and dense target environments are also considered The final chapter describes a number of techniques for designing microwave dispersive delays This monograph will be a useful resource for graduate students and practicing engineers in the field of radar system engineering *Radar Systems Analysis and Design Using MATLAB* Bassem R. Mahafza,2022-03-28 The first edition of this ground breaking and widely used book introduced a comprehensive textbook on radar systems analysis and design providing hands on experience facilitated by its companion MATLAB software The book very quickly turned into a bestseller Based on feedback provided by several users and drawing from the author s own teaching experience the 4th edition adopts a new approach The presentation in this edition takes the reader on a scientific journey whose major landmarks comprise the different radar sub systems and components Along the way the different relevant radar subsystems are analyzed and discussed in great level of detail Understanding the radar signal types and their associated radar signal processing techniques are key to understating how radar systems function Each chapter provides the necessary mathematical and analytical coverage required for a sound understanding of radar theory Additionally dedicated MATLAB functions programs enhance the understanding of the theory and establish a means to perform radar system analysis and design trades The software provides users with numerous varieties of graphical outputs Additionally a complete set of MATLAB code that generates all plot and graphs found within the pages of this textbook are also available All companion MATLAB code can be downloaded from the book s web page The 4th Edition Takes advantage of the new features offered by MATLAB 2021 release Brings the text to a current state of the art Incorporates much of the feedback received from users using this book as a text and from practicing engineers accordingly several chapters have been rewritten Presents unique topics not found in other books Maintains a comprehensive and exhaustive presentation Restructures the presentation to be more convenient for course use Provides a post course reference for engineering students as they enter the field Offers a companion solutions manual for instructors The 4th edition will serve as a valuable tool to students and radar engineers by helping them better analyze and understand the many topics of radar systems This book is written primarily as a graduate level textbook although parts of it can be used as a senior level course A companion solutions manual has been developed for use by instructors **Radar Signal Processing and Its Applications** Jian Li,Robert Hummel,Petre Stoica,Edmund G. Zelnio,2003-03-31 Radar Signal Processing and Its Applications brings together in one place important contributions and up to date research results in this fast moving area In twelve selected chapters it describes the latest advances in architectures design methods and applications of radar signal processing The contributors to this work were selected from the leading researchers and practitioners in the field This work originally published as Volume 14 Numbers 1 3 of the journal Multidimensional Systems and Signal Processing will be valuable to anyone working or researching in the field of radar signal processing It serves as an excellent reference providing insight into some of the most challenging issues being examined today *Radar Signal Analysis* William S. Burdic,1967

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