

1. Record Nr.	UNINA9910493699203321
Autore	O'Donoughue Nicholas A.
Titolo	Emitter detection and geolocation for electronic warfare // .Nicholas A. O'Donoughue
Pubbl/distr/stampa	Norwood : , : Artech House, , [2020] [Piscataqay, New Jersey] : , : IEEE Xplore, , [2019]
ISBN	1-63081-566-7
Descrizione fisica	1 online resource (353 pages)
Collana	The Artech House electronic warfare library
Disciplina	623.043
Soggetti	Electronics in military engineering Automatic control Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index
Sommario/riassunto	This comprehensive resource provides theoretical formulation for detecting and geolocating non-cooperative emitters. Implementation of geolocation algorithms are discussed, as well as performance prediction of a hypothetical passive location system for systems analysis or vulnerability calculation. Comparison of novel direction finding and geolocation algorithms to classical forms are also included. Rooted in statistical signal processing and array processing theory, this book also provides an overview of the application of novel detection and estimation algorithms to real world problems in EW. The book is divided into three parts: detection, angle of arrival estimation, and geolocation. Each section begins with an introductory chapter covering the relevant signal processing theory (either detection or estimation), then provides a series of chapters covering specific methods to achieve the desired end-product. MATLAB code is provided to assist readers with relevant probability and statistics, RF propagation, atmospheric absorption, and noise, giving readers an understanding of the implementation of the algorithms in the book, as well as developing new approaches to solving problems. Packed with problem sets and examples, this book strikes a balance between introductory texts and

reference manuals, making it useful for novice as well as advanced practitioners

---