1. Record Nr. UNISA996208436103316

Autore	Lazarov Andon Dimitrov
Titolo	Bistatic SAR/ISAR/FSR : theory algorithms and program implementation / / Andon Dimitrov Lazarov, Todor Pavlov Kostadinov
Pubbl/distr/stampa	ISTE Ltd ; ; John Wiley & Sons : , : London, England : , : Hoboken, New Jersey, , 2014 ©2014
ISBN	1-118-86347-X 1-118-86344-5 1-118-86352-6
Edizione	[1st edition]
Descrizione fisica	1 online resource (194 p.)
Collana	Focus Series, , 2051-249X
Altri autori (Persone)	KostadinovTodor Pavlov
Disciplina	621.3848
Soggetti	Bistatic radar Signal processing Synthetic aperture radar Algorithms
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title page; Contents; ACKNOWLEDGEMENT; CHAPTER 1. BISTATIC SYNTHETIC APERTURE RADAR (BSAR) SURVEY; 1.1. Introduction and main definitions; 1.2. Passive space-surface bistatic and multistatic SAR; 1.3. Forward scattering radars; 1.4. A moving target problem as an inversion problem in multistatic SAR; 1.5. BSAR models, imaging, methods and algorithms; 1.5.1. Range migration algorithm for invariant and variant flying geometry; 1.5.2. Bistatic point target reference spectrum based on Loffeld's bistatic formula; 1.5.3. Target parameters extraction; CHAPTER 2. BSAR GEOMETRY 2.1. BGISAR geometry and kinematics2.2. Multistatic BSAR geometry and kinematics; 2.3. BFISAR geometry and kinematics; 2.3.1. Kinematic parameter estimation; CHAPTER 3. BSAR WAVEFORMS AND SIGNAL MODELS; 3.1. Short pulse waveform and the BSAR signal model; 3.1.1. Short pulse waveform; 3.1.2. Short pulse BSAR signal model; 3.1.3. Target's parameters estimation in short range BFISAR scenario; 3.2. LFM pulse waveform; 3.2.1. LFM BSAR signal model; 3.3. CW LFM

Sommario/riassunto

Bistatic radar consists of a radar system which comprises a transmitter and receiver which are separated by a distance comparable to the expected target distance. This book provides a general theoretical description of such bistatic technology in the context of synthetic aperture, inverse synthetic aperture and forward scattering radars from the point of view of analytical geometrical and signal formation as well as processing theory. Signal formation and image reconstruction algorithms are developed with the application of high informative linear frequency and phase code modulating techniqu