

1. Record Nr.	UNINA9911004807403321
Autore	Wirth Wulf-Dieter
Titolo	Radar techniques using array antennas / / Wulf-Dieter Wirth
Pubbl/distr/stampa	London, : Institution of Electrical Engineers, 2008, c2001
ISBN	1-282-27520-8 9786612275203 1-59124-885-X 1-84919-143-3
Descrizione fisica	1 online resource (490 p.)
Collana	IEE radar, sonar, navigation, and avionics series ; ; 10
Classificazione	ZN 6500
Disciplina	621.38483
Soggetti	Antenna arrays Radar
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	Preface; 1. Introduction; 2. Signal representation and mathematical tools; 3. Statistical signal theory; 4. Array antennas; 5. Beamforming; 6. Sampling and digitisation of signals; 7. Pulse compression with polyphase codes; 8. Detection of targets by a pulse series; 9. Sequential detection; 10. Adaptive beamforming for jammer suppression; 11. Monopulse direction estimation; 12. Superresolution in angle; 13. Space-time adaptive processing; 14. Synthetic aperture radar with active phased arrays; 15. Inverse synthetic aperture radar (ISAR); 16. Target classification 17. Experimental phased-array system ELRA18. Floodlight radar concept (OLPI); 19. System and parameter considerations; Index; Glossary
Sommario/riassunto	This book gives an introduction to the possibilities of radar technology based on active array antennas, giving examples of modern practical systems, many of which were developed in Europe. In addition to coverage of antennas, array signal processing, adaptive digital beamforming, adaptive monopulse, superresolution, and sequential detection, several modern systems are described including space-time adaptive processing (STAP), moving target detection using synthetic aperture radar (SAR), and several other experimental phased array radar

systems. There are many valuable lessons presented for de

---