Record Nr. UNINA9911006594903321 Autore Monzingo Robert A. <1938-> Titolo Introduction to adaptive arrays / / Robert A. Monzingo, Randy L. Haupt, Thomas W. Miller Raleigh, NC, : SciTech Pub., c2011 Pubbl/distr/stampa **ISBN** 1-61353-113-3 1-61344-154-1 Edizione [2nd ed.] Descrizione fisica 1 online resource (559 p.) Altri autori (Persone) HauptRandy L MillerThomas W Disciplina 621.382/4 Soggetti Antenna arrays Antennas 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 Brief Contents; Preface; Part I - Adaptive Array Fundamental Principles: System Uses, System Elements, Basic Concepts, and Optimum Array Processing; 1. Introduction; 2. Adaptive Array Concept; 3. Optimum Array Processing; Part II - Adaptive Algorithms; 4. Gradient-Based Algorithms; 5. Direct Inversion of the Sample Covariance Matrix; 6. Recursive Methods for Adaptive Array Processing; 7. Cascade Preprocessors; 8. Random Search Algorithms; 9. Adaptive Algorithm Performance Summary; Part III - Advanced Topics; 10. Compensation of Adaptive Arrays 11. Direction of Arrival Estimation and Related Topics12. Recent Developments in Adaptive Arrays; Appendix A: Frequency Response Characteristics of Tapped-Delay Lines; Appendix B: Complex Envelope Notation: Appendix C: Convenient Formulas for Gradient Operations: Appendix D: Useful Matrix Relations and the Schwartz Inequality: Appendix E: Multivariate Gaussian Distributions; Appendix F: Geometric Aspects of Complex Vector Relationships; Appendix G: Eigenvalues and Eigenvectors; Appendix H: Selected Answers; Index

Sommario/riassunto

Introduction to Adaptive Arrays, 2nd Edition is organized as a tutorial, taking the reader by the hand and leading them through the maze of jargon that often surrounds this highly technical subject. It is easy to

read and easy to follow as fundamental concepts are introduced with examples before more current developments and techniques are introduced.