Record Nr. UNINA9910770277303321 Autore Krchák Martin Titolo Advancements in Antenna Measurement [[electronic resource]]: A Novel Approach to High-Frequency Attenuation / / by Martin Krchák, Marek eškovi, Pavol Kurdel, Anton Panda Cham:,: Springer Nature Switzerland:,: Imprint: Springer., 2024 Pubbl/distr/stampa **ISBN** 9783031488351 9783031488344 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (158 pages) Collana Lecture Notes in Electrical Engineering, , 1876-1119; ; 1108 Altri autori (Persone) eskoviMarek KurdelPavol **PandaAnton** Disciplina 621.3 Soggetti Electrical engineering **Engineering mathematics** Engineering - Data processing **Electrical and Electronic Engineering** Mathematical and Computational Engineering Applications Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto 1 Introduction -- 2 Anechoic chamber for radio waves -- 3 Depolarization wool a conductive a conductive lattice -- 4 Standard methods for analyzing antenna parameters -- 5 Technical equipment of antenna laboratory -- 6 Optimalization of the depolarization panel -- 7 Optimatization layout elemnts measurment -- 8 Exploitation methods in antenna technology -- 9 Conclusion. Sommario/riassunto This book is a pioneering exploration of a new form of high-frequency attenuation chamber that has the potential to revolutionize antenna measurement techniques. The authors present an innovative concept that leverages the classical principle of changing the polarization of radio waves, eliminating the need for traditional non-reflection chambers. By analyzing experimental results and searching for the optimal shape and composition of a depolarization panel, this monograph provides valuable insights into creating a non-reflective

environment for accurately measuring the directional properties of

antennas. The book delves into the methodology of frequency analysis, optimization of the depolarization panel, and the creation of a measuring workplace using this panel. It highlights the crucial attenuation phenomenon of suppressing cross-polarization coupling between transmitting and receiving antennas, enabling antenna measurements in any laboratory environment. With its promising results and practical applications in antenna technology, this publication offers a compelling and cutting-edge approach to antenna measurement that will captivate researchers, engineers, and professionals in the field.