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Autore	Brown Tim <1976->
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Sommario/riassunto

This book provides an excellent reference to the MIMO radio channel In this book, the authors introduce the concept of the Multiple Input Multiple Output (MIMO) radio channel, which is an intelligent communication method based upon using multiple antennas. Moreover, the authors provide a summary of the current channel modelling approaches used by industry, academia, and standardisation bodies. Furthermore, the book is structured to allow the reader to easily progress through the chapters in order to gain an understanding of the fundamental and mathematical principles behind MIMO. It also provides examples (i.e. Kroenecker model, Weicheselberger model, geometric and deterministic models, and ray tracing), system scenarios, trade-offs, and visual explanations. The authors explain and demonstrate the use and application of these models at system level. Key Features: . Provides a summary of the current channel modelling approaches used by industry, academia and standardisation bodies. Contains experimental and measurement based results. Provides a comprehensive approach with concise and visual explanations of MIMO Radio Channel. Covers a variety of system scenarios and explains the trade-offs involved in each. Accompanying website containing MATLAB code and solutions to related problems (http://www.tim.brown76.name/MIMObook) Practical Guide to the MIMO Radio Channel with MATLAB Examples is an invaluable reference for R&D engineers and professionals in industry requiring familiarisation with the concept, and engineers entering the field or working in related fields seeking an introduction to the topic. Postgraduate and graduate students will also find this book of interest.