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	Nota di contenuto	Front Cover; MIMO Wireless Communications; Copyright Page; Contents; List of Figures; List of Tables; Preface; List of Abbreviations; List of Symbols; About the Authors; Chapter 1 Introduction to multi-antenna communications; 1.1 Brief history of array processing; 1.2 Space-time wireless channels for multi-antenna systems; 1.3 Exploiting multiple antennas in wireless systems; 1.3.1 Diversity techniques; 1.3.2 Multiplexing capability; 1.4 Single-input multiple-output systems; 1.4.1 Receive diversity via selection combining; 1.4.2 Receive diversity via gain combining
		1.4.3 Receive diversity via hybrid selection/gain combining1.5 Multiple-input single-output systems; 1.5.1 Switched multibeam antennas; 1.5.2 Transmit diversity via matched beamforming; 1.5.3 Null-steering and optimal beamforming; 1.5.4 Transmit diversity via space-time coding; 1.5.5 Indirect transmit diversity; 1.6 Multiple-input multiple-output systems; 1.6.1 MIMO with perfect transmit channel knowledge; 1.6.2 MIMO without transmit channel knowledge; 1.6.3 MIMO with partial transmit channel knowledge; 1.7 Multiple antenna techniques in commercial wireless systems
		Chapter 2 Physical MIMO channel modeling2.1 Multidimensional channel modeling; 2.1.1 The double-directional channel impulse response; 2.1.2 Multidimensional correlation functions and stationarity;

2.1.3 Channel fading, K-factor and Doppler spectrum; 2.1.4 Power delay and direction spectra; 2.1.5 From double-directional propagation to MIMO channels; 2.1.6 Statistical properties of the channel matrix; 2.1.7 Discrete channel modeling: sampling theorem revisited; 2.1.8 Physical versus analytical models; 2.2 Electromagnetic models; 2.2.1 Ray-based deterministic methods

2.2.2 Multi-polarized channels2.3 Geometry-based models; 2.3.1 One-ring model; 2.3.2 Two-ring model; 2.3.3 Combined elliptical-ring model; 2.3.4 Elliptical and circular models; 2.3.5 Extension of geometry-based models to dual-polarized channels; 2.4 Empirical models; 2.4.1 Extended Saleh-Valenzuela model; 2.4.2 Stanford University Interim channel models; 2.4.3 COST models; 2.5 Standardized models; 2.5.1 IEEE 802.11 TGn models; 2.5.2 IEEE 802.16 d/e models; 2.5.3 3GPP/3GPP2 spatial channel models; 2.6 Antennas in MIMO systems; 2.6.1 About antenna arrays; 2.6.2 Mutual coupling

Chapter 3 Analytical MIMO channel representations for system design3.1 General representations of correlated MIMO channels; 3.1.1 Rayleigh fading channels; 3.1.2 Ricean fading channels; 3.1.3 Dual-polarized channels; 3.1.4 Double-Rayleigh fading model for keyhole channels; 3.2 Simplified representations of Gaussian MIMO channels; 3.2.1 The Kronecker model; 3.2.2 Virtual channel representation; 3.2.3 The eigenbeam model; 3.3 Propagation-motivated MIMO metrics; 3.3.1 Comparing models and correlation matrices; 3.3.2 Characterizing the multipath richness

3.3.3 Measuring the non-stationarity of MIMO channels

| Sommario/riassunto | Uniquely, this book proposes robust space-time code designs for real-world wireless channels. Through a unified framework, it emphasizes how propagation mechanisms such as space-time frequency correlations and coherent components impact the MIMO system performance under realistic power constraints. Combining a solid mathematical analysis with a physical and intuitive approach to space-time coding, the book progressively derives innovative designs, taking into consideration that MIMO channels are often far from ideal.The various chapters of this book provide an essential, complete and r |