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Altri autori (Persone)	LiuDekang YangZiyi LiGaoyang YeNeng YangKai
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Nota di contenuto	Introduction to MIMO communications -- Channel estimation for hybrid MIMO communication systems -- Accurate delay estimation in MIMO communication systems -- Accurate angle of arrival tracking method in MIMO communication systems -- Joint angle delay estimation in MIMO communication systems -- Two timescale robust energy-efficient precoding for dual-polarized MIMO systems -- Energy-efficient beamforming for satellite MIMO transmission -- Summary.
Sommario/riassunto	This book focuses on the modeling and analysis of large-scale array communication systems to solve the computational complexity problems caused by high-dimensional arrays. This is achieved by providing an in-depth study on several major topics, such as channel estimation, delay estimation, angle estimation, and joint angle delay

estimation. Both principles and engineering practice have been addressed, with more weight placed on engineering practice. The energy efficiency optimization problem of multi-antenna communication system is studied according to the actual situation of imperfect channel information and non-ideal hardware, and the corresponding high energy efficiency signal processing algorithm is proposed. The book benefits researchers, engineers, and graduate students in the fields of wireless communications and signal processing, etc.