DESCRIPTION

Wireless channels are becoming more and more important, with the future development of wireless ad-hoc networks and the integration of mobile and satellite communications. To this end, algorithmic detection aspects (involved in the physical layer) will become fundamental in the design of a communication system.

This book proposes a unified approach to detection for stochastic channels, with particular attention to wireless channels. The core idea is to show that the three main criteria of sequence detection, symbol detection and graph-based detection, can all be described within a general framework. This implies that a detection algorithm based on one criterion can be extended to the other criteria in a systematic manner.

• Presents a detailed analysis of statistical signal detection for digital signals transmitted over wireless communications

• Provides a unifying framework for different signal detection algorithms, such as sequence detection, symbol detection and graph-based detection, important for the design of modern digital receivers operating over mobile channels

• Features the hot topic of graph-based detection

_Detection Algorithms for Wireless Communications_ represents a novel contribution with respect to the current literature, with a unique focus on detection algorithms, as such it will prove invaluable to researchers working in academia and industry and in the field of wireless communications, as well as postgraduate students attending advanced courses on mobile communications.
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