

研究简报

衰落信道下Turbo网格编码调制在图像传输中的性能研究

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摘要

基于Turbo码和网格编码调制的特点,该文分析了TTCM的具体编译码方法,并分析比较了TTCM在8PSK调制下结合两种典型映射方案UP(Ungerboeck Partitioning),BP(BlockPartitioning)在Rayleigh信道中用于静态图像传输时的性能,给出了计算机仿真结果和评价图像传输质量的峰值信噪比(PSNR).

关键词 [Turbo码](#) [Turbo码网格编码调制](#) [平坦Rayleigh衰落信道](#) [集分割](#)

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Research on the Performance of Turbo Trellis Coded Modulation in Image Transmission over Flat Rayleigh Fading Channels

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Abstract

In this paper, based on the characteristics of Turbo codes and Trellis Coded Modulation (TCM), an improved method Turbo Trellis Coded Modulation (TTCM) is pre-sented and analyzed over flat Rayleigh fading channels in image transmission with two typical mapping strategies. The selection of different mapping strategies of TTCM in Rayleigh fading channels for image transmission is analyzed and investigated. Furthermore, taking 8PSK modulation of TTCM as the example, two different mapping strategies are compared. Computer simulation results and PSNR that can evaluate the quality of the transmitted image are given.

Key words [Turbo codes](#) [Turbo Trellis Coded Modulation\(TTCM\)](#) [Flat Rayleigh fading channels](#) [Set partitioning](#)

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