

V-BLAST OFDM空间功率扩展

官鹭 邵士海 唐友喜**

电子科技大学通信抗干扰技术国家级重点实验室 成都 611731

Spatial Power Spreading in V-BLAST OFDM with Distributed Transmit Antennas

Guan Lu Shao Shi-hai Tang You-xi*

National Key Lab. of Science and Technology on Communication, University of Electronic Science and Technology of China, Chengdu 611731, China

摘要

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摘要 该文在多径衰落信道下, 针对分布式发射天线V-BLAST OFDM, 提出了一种将数据功率扩展到不同发射天线的信号发射方法。该方法利用了分布式天线间时延, 增强了分布式信道的频率选择性, 提高了V-BLAST OFDM可获得的分集度。在BPSK调制, M.1225步行测试信道下的仿真结果表明: 当误比特率为 10^{-3} 时, 与传统方法相比, 该文方法有大于2 dB的功率节省。

关键词: 无线通信 V-BLAST 分布式天线系统 功率扩展

Abstract: Focusing on the V-BLAST OFDM system with distributed transmit antennas in multipath fading channel, a novel signal transmission method utilizing spatial power spreading is proposed. The method takes advantage of the delays among distributed antennas and enhances frequency selectivity of the distributed channel. Thus, the achievable diversity increases. Simulation results in M.1225 pedestrian test channel show that the proposed algorithm has 2 dB gain at BER of 10^{-3} compared to conventional method using BPSK modulation.

Keywords: Wireless communication V-BLAST Distributed transmit antenna systems Power spreading

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通讯作者: 唐友喜 Email: tangyx@uestc.edu.cn

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