

室内分布发射天线STBC系统的发射天线位置优化

韩亮 邵士海 唐友喜* 沈莹*

电子科技大学通信抗干扰技术国家级重点实验室 成都 611731

Antenna Location Optimization for STBC with Distributed Transmit Antennas in an Indoor Environment

Han Liang Shao Shi-hai Tang You-xi Shen Ying*

National key Lab of Science and Technology on Communications, University of Electronic Science and Technology of China, Chengdu 611731, China

摘要

参考文献

相关文章

Download: PDF (305KB) [HTML](#) 1KB Export: BibTeX or EndNote (RIS) [Supporting Info](#)

摘要 该文针对室内环境下分布发射天线STBC系统,在考虑了路径损耗、阴影衰落和莱斯衰落的基础上推导了室内的平均误符号率(AASER),通过使室内的平均误符号率最小得到了优化的发射天线位置。理论分析表明最优的发射天线位置与房间的长、宽、高以及移动台的高度有关。仿真结果验证了理论分析的正确性。

关键词: 无线通信 分布式天线系统 空时分组码 天线位置优化 室内

Abstract: The Area Averaged Symbol Error Ratio (AASER) for indoor STBC downlink with distributed transmit antennas is derived, considering the effects of path loss, shadow fading and Rician fading. Then optimal antenna location can be obtained by minimizing AASER. Theoretical analyses show that the optimal antennas location is related to the room length, width, height and the height of the mobile station. Simulation results prove the correctness of the theoretical analysis.

Keywords: Wireless communications Distributed antennas systems STBC Antenna location optimization Indoor

Received 2010-10-09;

本文基金:

国家自然科学基金(60832007, 60902027, 60901018, 61001087)和中兴通讯研究基金资助课题

通讯作者: 唐友喜 Email: tangyx@uestc.edu.cn

引用本文:

韩亮, 邵士海, 唐友喜, 沈莹. 室内分布发射天线STBC系统的发射天线位置优化[J] 电子与信息学报, 2011, V33(5): 1154-1158

Han Liang, Shao Shi-Hai, Tang You-Xi, Shen Ying. Antenna Location Optimization for STBC with Distributed Transmit Antennas in an Indoor Environment[J], 2011, V33(5): 1154-1158

链接本文:

<http://jeit.ie.ac.cn/CN/10.3724/SP.J.1146.2010.01073> 或 <http://jeit.ie.ac.cn/CN/Y2011/V33/I5/1154>

Service

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [Email Alert](#)
- ▶ [RSS](#)

作者相关文章

- ▶ [韩亮](#)
- ▶ [邵士海](#)
- ▶ [唐友喜](#)
- ▶ [沈莹](#)