电子与信息学报 2008 30 (4): 999-1003 ISSN: 1009-5896 CN: 11-4494/TN

论文

一种基于射线跟踪的射线管分裂新方法

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收稿日期 2006-9-26 修回日期 2007-3-21 网络版发布日期 2008-6-10 接受日期

摘要
该文提出了一种基于射线跟踪方法的射线管分裂新技术——确定性射线管分裂法，同时给出该方法的解析分裂格式和完备性说明。仿真计算证明，在相同预测精度条件下，与两种已知的射线管方法相比，该方法具有花费CPU时间较少、计算效率较高的优点。用该方法在室内环境中进行接收功率预测，仿真结果与公开发表的文献结果相比，一致性良好。

关键词 电波传播 射线跟踪 确定性射线管分裂法 接收功率

分类号 TN011

A Novel Splitting Technique of Ray Tubes Based on Ray Tracing

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Abstract
In this paper, a novel splitting technique of ray tubes based on ray tracing method is put forward, which is called the deterministic splitting method of ray tubes. At the same time, the analytic splitting format and the demonstration of self-contained characteristic is provided. The simulation results prove that the proposed method possesses the merits of less CPU time and higher computing efficiency, compared with two known methods of ray tubes on the condition of same prediction precision. The prediction of received power has been done with this method in indoor environment. A good agreement is achieved between the simulated results and the published results.

Key words Radio propagation Ray tracing Deterministic splitting of ray tubes Received power

DOI:

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