

数学与系统科学研究院

计算数学所学术报告

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报告题目:

**Fast Floating Random Walk Solver
for Capacitance Extraction in IC**

邀请人: 卢本卓 研究员

报告时间: 2013 年 4 月 26 日 (周五)

上午 10:00-11:00

报告地点: 科技综合楼三层 301

计算数学所小报告厅

Abstract:

In this talk, I'll introduce the floating random walk (FRW) algorithm for capacitance extraction of VLSI interconnects. The algorithm has the 3-D field-solver level of accuracy, and is scalable to full-chip / full-net extraction task. The technique for handling structures with multiple dielectrics are presented, which was not well established or available in previous literatures. The variance reduction techniques based on importance sampling and stratified sampling are proposed to improve the convergence rate of the FRW procedure. The algorithm is further accelerated with the parallel computing on the multi-core CPU and the GPU platforms. Numerical results validate the efficiency of presented techniques, and demonstrate the preliminary results of extracting the whole chip with this accurate field solver.

欢迎大家参加!