数学与系统科学研究院

计算数学所定期学术报告

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报告题目：

Parallel Adaptive Finite Element Method for 3-D VLSI Interconnect Parasitic Extraction

报告时间：2011 年 12 月 1 日（周四）

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报告地点： 科技综合楼三层 311

计算数学所报告厅

Abstract：

As the VLSI technology scales down to nano scale and the circuit frequency reaches GHz, interconnects play a more and more important role in today's integrated circuits (IC). The parasitic effects of interconnects could greatly deteriorate the performance of the circuits and lead to many signal integrity problems. Parasitic extraction of interconnects, which builds the equivalent circuit model for interconnects by various numerical approaches, therefore becomes one of the key steps in IC design. In this talk, a parallel adaptive finite element method for parasitic extraction of large scale interconnects is developed to provide extremely high parallel scalability and numerical accuracy. Numerical results of some large scale adaptive finite element simulations with up to 1 billion degrees of freedom and using up to 1024 CPU cores are presented to demonstrate that the our adaptive method is robust and scalable for analysis of very complicated geometries of conductors.

欢迎大家参加！