数学与系统科学研究院

计算数学所学术报告

报告人：　**Prof. Feng Yuntian**

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报告题目：

Numerical Modeling of multi-physics phenomena in particle systems: a combined Lattice Boltzmann and Discrete Element Approach

邀请人：　袁礼研究员

报告时间：**2011 年 8 月 4 日（周四）**

下午 16：00-17：00

报告地点：　科技综合楼三层 **311**

计算数学所报告厅

Abstract：

The numerical modeling of multi-physics phenomena encountered in particle systems has increasingly attracted attentions due to the importance in many scientific and engineering applications. The intricate complexity of interactions between different physical fields often poses significant computational challenges. This talk presents a combined Lattice Boltzmann and discrete element methodology to simulate particle transport problems, whereby the Lattice Boltzmann Method is used to model (incompressible) fluid flows and the discrete element method to model the motion of (solid) particles. The hydrodynamic coupling between the fluid flow and the particles are explicitly accounted for. The extension of the methodology to include a magnetic field makes it possible to model magneto-rheological fluids.

欢迎大家参加！