# 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：**

# Canonical Symplectic Particle-in-cell Method

**邀请人：唐贻发 研究员**

**报告时间：2015 年 5 月 26 日（周二）**

**上午 9:00-10:00**

**报告地点：科技综合楼三层**

**311 报告厅**

## Abstract:

Particle-in-Cell (PIC) simulation is the most important numerical tool in plasma physics and accelerator physics. However, its long term accuracy has not been established for a long time. By realizing the canonical symplectic algorithms in the framework of PIC method, the canonical symplectic PIC method for the Vlasov-Maxwell system preserves all the good long-term properties of the canonical symplectic algorithms. Meanwhile, the method is propitious to large-scale parallel computings. This is also the first context where the canonical symplectic algorithms are applied to systems with massive, say more than 10^9, degrees of freedom.

欢迎大家参加！