#### 数学与系统科学研究院

### 计算数学所学术报告

#### <u>报告人</u>: Prof. Daniel X. Guo

( Department of Mathematics and Statistics, University of North

Carolina Wilmington )

# 报告题目:

# New Development of Numerical Computation in Fluid dynamics

邀请人: 张林波 研究员

# <u>报告时间</u>: 2015 年 7 月 24 日(周五) 下午 15:00~16:00

<u>报告地点</u>:数学院南楼七层 702 会议室 Abstract:

**One-step semi-Lagrangian method is** investigated for computing the numerical solutions of time-dependent partial differential equations. This method is based on Lagrangian trajectory or the integration from the departure points to the arrival points (regular nodes). The departure points are traced back from the arrival points along the trajectory of the path. The convergence and stability are studied for the implicit and explicit methods. The numerical examples show that those methods work very efficiently the time-dependent partial for differential equations.

