数学与系统科学研究院

计算数学所学术报告

报告人：　**Dr. Yunhua Xue**

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报告题目：

A simple finite element method simulating the incompressible High Reynolds number flow and boundary layer separation

邀请人：　张硕　博士

报告时间：**2015** 年 **3** 月 **12** 日（周四）

上午 **10:00-11:00**

报告地点：　科技综合楼三层

301 小报告厅

Abstract:

In this talk, we apply a simple finite element numerical scheme, to perform a high resolution numerical simulation of incompressible flow over a triangular domain and analyze its boundary layer separation. Compared with many classical finite element fluid solvers, this numerical method avoids a Stokes solver, and only two Poisson-like equations need to be solved at each time step/stage. Numerical experiments over triangular domain for high Reynolds number $Re=10^4, 10^5$ flows are investigated. At same time, the dynamical mechanism of the boundary layer separation, including the bifurcation location and critical time are qualitatively reported in this talk.

欢迎大家参加！