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：

An equation decomposition based tailored finite point method for Oseen flow

邀请人：　　明平兵 研究员

报告时间：**2014** 年 **9** 月 **4** 日（周四）

上午 **10:00-11:00**

报告地点：　　科技综合楼三层 **311**

计算数学所报告厅

Abstract:

In this talk, we propose a tailored-finite-point method for linearized incompressible flow (Oseen equations) in two dimensions based on the equation decomposition technique. Unlike the usual vorticity-streamline function representation, the velocities are decomposed to irrotational and rotational parts. We only need to solve a system of two elliptic equations which are decoupled in the interior domain. They are only coupled in boundary conditions. Furthermore, our scheme satisfies the discrete maximum principle in the interior domain automatically. It can be considered as a first step to solve the incompressible Navier-Stokes problem. Finally, several numerical examples show the efficiency and feasibility of our method whatever the Reynolds number is small or large.

欢迎大家参加！