

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Ying Yang**

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报告题目:

**A decoupling two-grid method for
Poisson-Nernst-Planck equations**

邀请人: 卢本卓 研究员

报告时间: **2015 年 10 月 20 日(周二)**

下午 15:00-16:00

报告地点: **数学院南楼七层**

702 会议室

Abstract:

In this talk, we mainly discuss two-grid finite element methods for the steady-state Poisson-Nernst-Planck (PNP) equations in the biomolecular modeling area and the time dependent PNP equations for the ion channel. PNP equations are a coupled, nonlinear and singular system. We can decouple this system by the two-grid method which can avoid the divergence of coupled iterations for the original system and also can achieve the same accuracy order as the finite element method does. In addition, we will also show some computational results for three dimensional steady-state PNP for Gramicidin A channel.

欢迎大家参加！