

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Tai-chia Lin**

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报告题目:

**Poisson-Nernst-Planck type systems
with diffusion from Lennard-Jones
potentials**

邀请人: 卢本卓 研究员

报告时间: 2015 年 3 月 20 日 (周五)

上午 11:00-12:00

报告地点: 数学院南楼七层

702 会议室

Abstract:

The Lennard-Jones (LJ) potential, a well-known mathematical model for the interaction between a pair of ions, has important applications in many fields of biology, chemistry and physics. In this talk, I will introduce a new approach of the LJ potential and a way to get the diffusion of the approximate LJ potential, which may modify Poisson-Nernst-Planck (PNP) equations in order to describe ion transport through channels. Our results indicate that new PNP type systems may become a useful model to study biological ion channels and charged nanopores.

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