数学与系统科学研究院

计算数学所学术报告

报告人：Dr. Jiwei zhang

（ *Courant Institute of Mathematical Sciences, New York University*）

报告题目：

Coarse-graining spiking neuronal networks: between homogeneity and synchrony

邀请人： 邸亚娜 副研究员

报告时间：2014 年 1 月 8 日（周三）

上午 11:00

报告地点： 科技综合楼三层 311

计算数学所报告厅

Abstract：

Networks of neurons in the brain are collectively capable of exhibiting a variety of interesting dynamical phenomena. The network's dynamics can be quite complicated, involving correlations across the neurons in the network and across time. The correlation may not be obviously related to the architecture of the network itself. One of the challenges in neuroscience is to develop a language which can be used to parsimoniously describe these complicate dynamics, that is to say, a way of systematically coarse-graining the network. In this talk I will briefly review some of standard methods for coarse-graining and highlight the regimes for which they fail, then I will also introduce some recent approaches that we have tried, as well as possible direction for future works.

欢迎大家参加！