数 学 物 理 研 究 室
系 列 学 术 报 告

Schrodinger 方程的稳定性问题

应中科院武汉物理与数学所数学物理研究室邀请，瑞士联邦理工大学（EPFL）Charles Stuart 教授于 2010 年 4 月 1 日至 29 日来我所访问，并就 Schrodinger 方程的稳定性问题做系列报告，具体安排如下：

<u>讲座时间</u>：每周二下午 2：30—5：30 (4 月 6 日至 29 日期间)

<u>地　　　点</u>：武汉物理与数学所三楼会议室

<u>讲座内容</u>：*Orbital stability of relative equilibria of Hamiltonian systems standing waves for the nonlinear Schrodinger equation*

In this mini-course, a standing wave for the NLS will be viewed as a special case of a relative equilibrium of a Hamiltonian system.

(1) Presentation of the nonlinear Schr¨odinger equation as a Hamiltonian system. Notion of a standing wave.

(2) Relative equilibria of Hamiltonian systems acting on RN and their orbital stability.

(3) Extension to Hamiltonian systems acting on an infinite dimensional Hilbert space.

(4) Application of the theory to the nonlinear Schr¨odinger equation for (i) defocusing and (ii) self-focusing nonlinearities.

The presentation will follow my notes:

C.A. Stuart, Lectures on the orbital stability of standing waves and application to the nonlinear Schr¨odinger equation, Milan J. Math., 76 (2008), 329-399

Prerequisite knowledge: Only some basic knowledge of linear functional analysis, ode and pde are necessary

欢 迎 参 加 ！