

数学与系统科学研究院

计算数学所学术报告

报告人: **Dr. Linyu Peng**

(*Waseda Institute for Advanced Study, Waseda University*)

报告题目:

**Continuous Symmetries of
Semi-Discrete Equations and
Noether's Theorem**

邀请人: 常向科 助理研究员

报告时间: 2018 年 7 月 31 日 (周二)

下午 16:30-17:30

报告地点: 数学院南楼七层

702 教室

Abstract:

Dating back to Sophus Lie's pioneering work in 1880s, the symmetry method provides significant insights for finding exact analytic solutions of differential equations; their extensions to difference as well as semi-discrete equations have been greatly investigated during last decades.

In this talk, we are mainly focused on general prolongation formulae for continuous symmetries of semi-discrete equations, which is essential for symmetry analysis but has been unclear for quite some time. These formulae will allow us to establish the semi-discrete version of Noether's theorem connecting variational symmetries and conservation laws. The talk is partially based on collaborations with Peter Hydon (Kent).

欢迎大家参加！