# 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**

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报告题目：

**Symmetries and Noether's theorem for semi-discrete equations**

邀请人： 常向科 博士

报告时间：2017 年 8 月 22 日（周二）

上午 10:00-11:00

报告地点： 数学院南楼七层

702 教室

# Abstract：

In this talk, we mainly consider the extension of Noether's theorem to semi-discrete equations after introducing a general prolongation formula for their continuous symmetries. For differential equations, the symmetry method provides significant insights and techniques for finding exact solutions. These techniques have been generalised to discrete as well as semi-discrete equations during last decades. However, in literature, some inconsistency for symmetry analysis of semi-discrete equations was realised, which has been troublesome for quite some time. This mystery of inconsistency will be uncovered in this talk too. We will also provide an understanding of integrability via compatibility and continuous symmetries.

欢迎大家参加！