数学与系统科学研究院

计算数学所学术报告

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报告题目：

Classification of discrete Hirota-type equations in 3D

邀请人： 胡星标 研究员

报告时间：2015 年 4 月 20 日（周一）

晚上 19:30—20:30

报告地点： 数学院南楼七层

702 会议室

Abstract：

In the series of recent publications we have proposed a novel approach to the classification of integrable differential/difference equations in 3D based on the requirement that hydrodynamic reductions of the corresponding dispersionless limits are `inherited' by the dispersive equations. In this paper we extend this to the fully discrete case. Our only constraint is that the initial ansatz possesses a non-degenerate dispersionless limit (this is the case for all known Hirota-type equations). Based on the method of deformations of hydrodynamic reductions, we classify discrete 3D integrable Hirota-type equations within various particularly interesting subclasses. Our method can be viewed as an alternative to the conventional multi-dimensional consistency approach.

欢迎大家参加！