

数学与系统科学研究院
计算数学所系列学术报告

报告人: **Prof. Jacek Szmigielski**

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报告题目:

**On isospectral deformations of
classical inhomogeneous strings
(I-IV)**

邀请人: 胡星标 研究员

报告时间和地点:

2016年9月6日(周二) 上午 10:00-11:00 南楼 602 会议室

2016年9月7日(周三) 上午 10:00-11:00 南楼 602 会议室

2016年9月8日(周四) 下午 15:00-16:00 南楼 514 会议室

2016年9月9日(周五) 上午 10:00-11:00 南楼 602 会议室

Abstract:

The series of talk is about a class of isospectral deformations of the inhomogeneous string boundary value problem. The deformations considered are generalizations of the isospectral deformation that has arisen in connection with the Camassa-Holm equation but are of independent interest. I will discuss how these new isospectral deformations result in evolution equations on the mass density whose form depends on how the string is tied at the endpoints. Also, if time permits, I will discuss why the evolution equations in this class linearize on the spectral side and hence can be solved by the inverse spectral method. As an example, I will discuss the problem involving a mass density given by a discrete finite measure and arbitrary boundary conditions which, as it turns out, can be solved by Stieltjes' continued fractions.

This is joint work with D. Gomez (University of British Columbia, Canada) and K. Colville (McGill University, Montreal, Canada).

欢迎大家参加！