

数学与系统科学研究院

计算数学所学术报告

报告人: 何益 副研究员

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报告题目:

**Coupled modified KdV equations,  
skew orthogonal polynomials,  
convergence acceleration algorithms  
and Laurent property**

邀请人: 胡星标 研究员

报告时间: 2016 年 1 月 25 日 (周一)

**晚上 20:00-21:00**

报告地点: 数学院南楼七层

**702 会议室**

## **Abstract:**

**In this talk, we show that the coupled modified KdV equations possess rich mathematical structures and some remarkable properties. The connections between the system and skew orthogonal polynomials, convergence acceleration algorithms and Laurent property are discussed. It turns out that starting from the elements of the solutions of the coupled modified KdV equations we may define particular skew orthogonal polynomials and obtain the recurrence formulae of the polynomials. It is also shown that a discrete system related to a discrete version of the coupled modified KdV equations is related to the epsilon-algorithm. In addition, by considering the stationary system we have derived a new system which possesses Laurent property.**

**欢迎大家参加！**