

数学与系统科学研究院  
计算数学所网络学术报告

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报告题目:

**Cauchy matrices and matrix discrete  
integrable systems**

邀请人: 胡星标 研究员

报告时间: 2020 年 9 月 13 日 ( 周日 )  
下午 15:00-16:00

报告工具: 腾讯会议 ( ID: 295 773 629 )

## Abstract:

The Sylvester equation,  $AM + MB = C$ , is a famous matrix equation in linear algebra and widely used in many areas. In the talk, we will give an explicit form of  $M$  as solutions to the Sylvester equation. Then, starting from the Sylvester equation and introducing shift relations to define plane wave factors, we construct matrix discrete integrable systems, including matrix Adler-Bobenko-Adler equations and discrete Boussinesq-type equations.

欢迎大家参加！