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：

Unrestricted discrete Lotka - Volterra equation and beyond

邀请人： 常向科 副研究员

报告时间： 2020 年 10 月 18 日（周日）

上午 **8:00-9:00**

报告工具： 腾讯会议（**ID：306 820 290**）

Abstract：

In this talk, I will introduce an unrestricted fully‐discrete Lotka‐Volterra (dLV) equaiton under the boundary condition $u\_0^n \neq 0$, and provide its solution in terms of Hankel determinant. It turns out that this unrestricted dLV equaiton could be linearized in sense of equivalence to a discrete Riccati equation. Besides this, its Lax pair in terms of symmetric orthogonal polynomials is also presented. Moreover, a generalized ε algorithm is also derived, which is connected to the obtained unrestricted dLV equaiton. All these results are obtained by Hirota's bilinear method and determinant techniques.

欢迎大家参加！