

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:

**The Linearized Iteration Methods  
for Nonsymmetric Algebraic Riccati  
Equation**

邀请人: 白中治 研究员

报告时间: 2021 年 10 月 17 日(周日)

晚上 19:00-20:00

报告工具: 腾讯会议 ID: (124 174 316)

## **Abstract:**

**We consider solving the minimal nonnegative solution of the nonsymmetric algebraic Riccati equation. As is known, there are many classical iteration methods for solving the linear system, for example, Jacobi, Gauss-Seidel, SOR and Krylov subspace iterative methods. These methods can also be used to solve the nonsymmetric algebraic Riccati equation. Besides, we present other two linear numerical methods, linear alternating iterative method and new fixed iterative method. We not only prove the monotonic convergence of these methods in theory, but also show the effectiveness of these methods through numerical examples.**

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