

数学与系统科学研究院

计算数学所学术报告

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报告题目:

**The Existence Condition and  
Numerical Methods of the Extremal  
Solutions for Complex  
Nonsymmetric Algebraic Riccati  
Equations**

邀请人: 白中治 研究员

报告时间: 2016 年 10 月 19 日(周三)

晚上 19:00-20:00

报告地点: 数学院南楼七层

702 教室

## **Abstract:**

**For a class of complex nonsymmetric algebraic Riccati equations arising in Markov modulated fluid flow, we prove that the existence condition only needs the comparison matrix of the coefficient matrices be a nonsingular M-matrix without diagonally dominant. All the algorithms which were used to solve the minimal nonnegative solution of real nonsymmetric algebraic Riccati equation can also deliver the extremal solutions. We also show the effectiveness of the algorithms by numerical experiments.**

**欢迎大家参加！**