

國立清華大學數學系學術演講

NTHU MATH Colloquium

講題 Numerical ranges of matrix powers

講者 王國仲教授 (國立交通大學數學系)

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地點 Room 101, General Building III

茶會 15:30, R707

Abstract

For any n -by- n complex matrix A , its numerical range $W(A)$ is defined by $\{ x^*Ax : x \in \mathbf{C}^n, x^*x=1 \}$. The study of the numerical range has a history of one hundred years now. It started with the amazing result of Toeplitz-Hausdorff that the numerical range is always a convex set in the plane. In this talk, we start to present some basic properties of the numerical range of a matrix. Then we will introduce some recent results and problems on this topic.