

COLLOQUIUM
UNIVERSITY OF PITTSBURGH
SEPTEMBER 29, 2006
704 THACKERAY HALL
4:00 P.M.

SPEAKER: **PROFESSOR JOSEPH A. CIMA**

DEPARTMENT OF MATHEMATICS
UNIVERSITY OF NORTH CAROLINA

TITLE: **SOME CONTRASTS AND QUESTIONS IN THE COMPARISON
OF ANALYTICITY IN FINITE AND INFINITE DIMENSIONS**

ABSTRACT: There are criteria on invertibility of analytic mappings F from domains in \mathbb{C}^n into \mathbb{C}^n . These depend on the idea of determinants of the Jacobian matrices of the mapping F . In infinite dimensions there are one to one analytic mappings G from the ball in a Hilbert space into itself which do not have analytic inverses. We will discuss an improvement of a result of Aurich that implies that such mappings G have an analytic inverse. (work in progress)