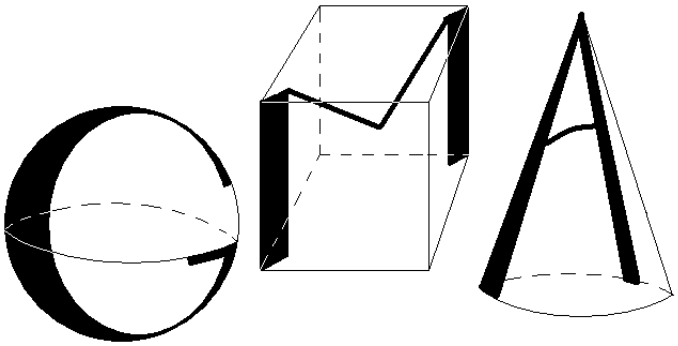

Colloquium

Wednesday November 19, 3:00 p.m. (8^{th} Period)

In the Atrium
Refreshments provided.

Speaker: David Maynoldi

Title: Approximate Finite-Dimensional Dilations

Abstract

We will discuss known dilations of commuting contractive $n \times n$ matrices to commuting uniary matrices. We will explore approximatae dilations of a d-tuple of $n \times n$ matrices to a d-tuple of $m \times m$ matrices in a family N which hold on finite sets of polynomials. One of our results is that if the family N is norming and closed under componentwise finite direct sums, then an approximate diltaion involving a pair of isometries holds for a single polynomial. There is a natural generalization of this result. Also, if we strengthen the norming assumption on the family N and make other reasonable assumptions, we get the desired approximate dilation using a single isometry. This is joint work with Mike Jury.