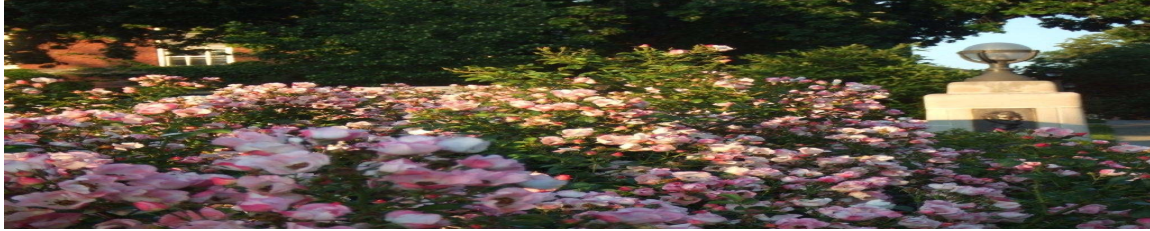


ISU ALGEBRA SEMINAR



Date: Wednesday, March 27, 2019

Time: 10:00 AM-10:50 AM

Location: STV 325

Speaker: George Seelinger

Talk title: The Structure of Orthogonal Matrix Invariants

Abstract: One of the goals of Jordan Canonical Forms is to characterize the orbits of the general linear group $GL_n(F)$ when acting on the set of $n \times n$ matrices $M_n(F)$ by conjugation when F is an algebraically closed field. This problem can be generalized to m -tuples of $n \times n$ matrices as well as to other algebraic groups, such as the orthogonal group $O_n(F)$. In this talk, I will discuss results related to determining the orbits of $O_n(\mathbb{C})$ when acting on $M_n(\mathbb{C})^m$ (m copies of $M_n(\mathbb{C})$) and the structure of these orbits, where we use \mathbb{C} to denote the field of complex numbers.