

COLLOQUIUM

Ravindra Girivaru,

University of Missouri-St. Louis

**Matrix Factorizations of
Polynomials**

4-27-23

Neckers 156 - Time: 3:00-4:00 pm

Reception immediately following in the math library.

Abstract:

A matrix factorization of a polynomial F is a pair of (square) matrices (A, B) such that their product is F times the identity matrix. After spending some time on preliminaries, I will explain what is known about this question, and what its relevance is to the geometry of the set of zeroes of the polynomial F . I will also talk about its connection to the problem of determining the minimum number of polynomials required to define curves in three dimensional space and analogous questions. This talk should be accessible to undergraduates in the department.