Mentor Lecture Series

Organizer(s): Shaowei Lin & Diogo Oliveira e Silva

Monday, 4:10–5:00pm, 60 Evans

Oct. 15   **David Eisenbud**, UCB

Plato's Cave: Mapping a variety to a hypersurface

Algebraic curves in space were first studied by projecting them linearly to plane curves; and surfaces were studied similarly, projecting them to hypersurfaces in 3-space. General projections in these dimensions are very nice, but there are strange new phenomena in high dimensions. What can be said in general? What could one hope for? I'll describe the classical theory, and then some current questions from my recent work on the high-dimensional case.

The Mentor Lecture Series is designed for first and second year graduate students. The series aims to acquaint beginning graduate students with potential dissertation supervisors whom they might not otherwise closely encounter, and to impart a taste of research activity in the mathematics department in order to help beginning students choose fields of specialization.