

ALGEBRAIC GEOMETRY AND COMMUTATIVE ALGEBRA SEMINAR

Speaker: Brian Harbourne

University of Nebraska

Date: Tuesday, November 9, 2021

Time: 2:30 PM

Location: 125 Hayes-Healy Hall

Zoom URL: [notredame.zoom.us/j/97739336655?
pwd=QmUxd3V2Rndyd0VFNlc0RFBxK0xPQT09](https://notredame.zoom.us/j/97739336655?pwd=QmUxd3V2Rndyd0VFNlc0RFBxK0xPQT09)



Lecture Title:

The concept of geproci subsets of projective 3-space

Abstract

The occurrence of finite subsets Z in projective 3-space whose general projection to the projective plane is a complete intersection was raised in 2011 by F. Polizzi. Such sets are now called geproci sets. One example is given by a complete intersection in a plane. Another is given by a grid of lines on a smooth quadric. The fact that there are other examples became known only in 2018 as a by-product of work on unexpected surfaces, which in turn was motivated by work on hyperplane arrangements. I will review how these concepts are related and discuss recent results on geproci sets.