

GRADUATE STUDENT SEMINAR

Guest Speaker: Juan Ramirez
University of Notre Dame



Date: Wednesday, March 27, 2024

Time: 4:00 PM

Location: 258 Hurley Hall

Lecture Title:
Rees Algebras and Rational Plane Curves

Abstract

Consider the polynomial ring $R = k[x, y]$ in two variables over a field k and I an ideal presented by a class of 3×2 matrices (Hilbert-Burch) with column degrees $d_1 \leq d_2$. In this talk we will say a few words on how one can translate information about the defining equations of the Rees Algebra of I and Rational Plane Curves of degree $d_1 + d_2 = d$. In particular, how one can translate between the configuration of the singularities of a Rational Plane Curve \mathcal{C} and the bi-degrees of the defining equations of the Rees Algebra $\mathcal{R}(I)$.