

ALGEBRAIC GEOMETRY AND COMMUTATIVE ALGEBRA SEMINAR

Speaker: Jonathan Montaño
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Date: Tuesday, November 16, 2021

Time: 2:30 PM

Location: Zoom

Zoom URL: notredame.zoom.us/j/97739336655?pwd=QmUxd3V2Rndyd0VFNlc0RFBxK0xPQT09

Lecture Title:

Blowup algebras of determinantal ideals in prime characteristic

Abstract

We study F -purity and strong F -regularity of blowup algebras. Our main focus is on algebras given by symbolic and ordinary powers of different types of determinantal ideals. We also prove that the limit of the normalized regularity of the symbolic powers of these ideals exists and that their projective dimension stabilizes. To obtain these results we develop the notion of F -pure filtrations and symbolic F -purity. This is joint work with Alessandro De Stefani and Luis Núñez-Betancourt.