Algebraic Geometry Seminar

Blowups of scrolls and their degenerations

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Abstract: It is a classical, but also difficult, problem to determine the defining equations of the blowup of P^n along a given subvariety X. In this talk, I will focus on the cases where X is defined by the ideal of maximal minors of a 2xn matrix of linear forms. I will explain how to determine the defining equations and the singularities of their blowup algebras. This relies on a stratification of the Hilbert scheme of determinantal ideals and the combinatorics of square-free degenerations. This is joint work with Alessio Sammartano.

Monday, November 28 at 1:30 PM in 636 SEO