

Tangent schemes of determinantal varieties

Federico Galetto

2015/10/08

A particularly nice property for an algebraic variety is to have rational singularities. For example, it is known that determinantal varieties have rational singularities. I will define the property and illustrate some of its geometric consequences. Then I will outline a method to prove that tangent schemes of determinantal varieties have a main component that also has rational singularities. This is a preliminary report on joint work with Greg Smith (Queen's) and Jerzy Weyman (UConn).