

BÉZOUT'S THEOREM

JENNIFER LI

ABSTRACT

The purpose of this talk is to introduce Bézout's Theorem for curves in two-dimensional space. This is a statement in algebraic geometry that counts the number of points where two curves intersect. The general idea is that, given curve C of degree m and curve D of degree n , the number of intersection points of C and D cannot surpass mn . But if we extend our space, we can have exactly mn intersection points; I will discuss when this nicer result occurs, and introduce some concepts in algebraic geometry along the way.