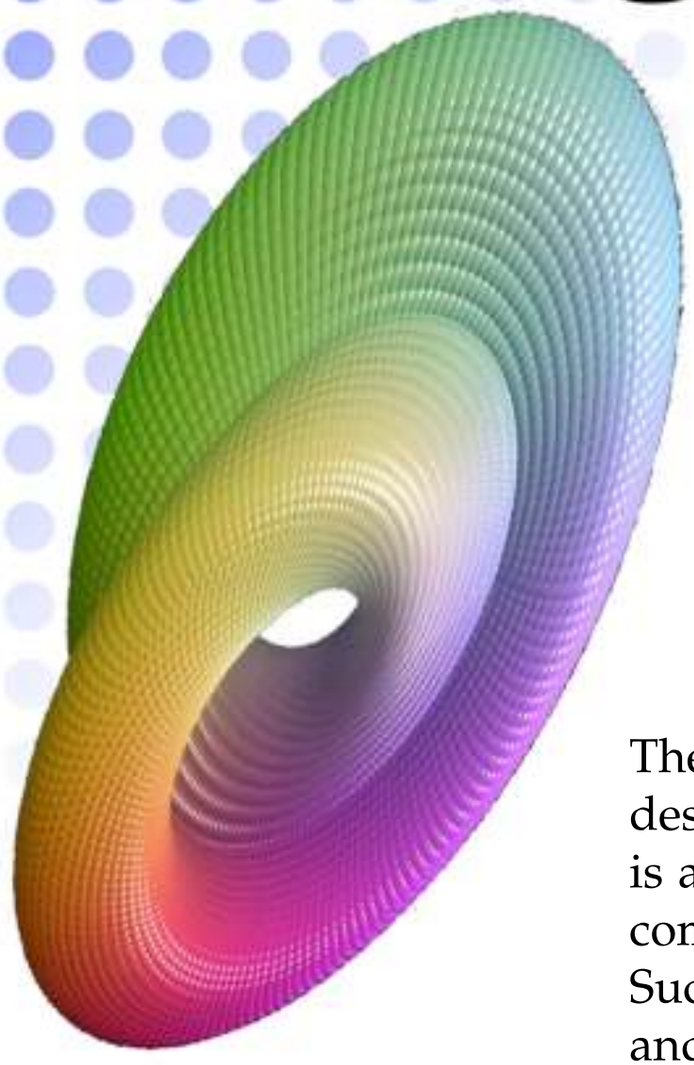
Michigan Math Club

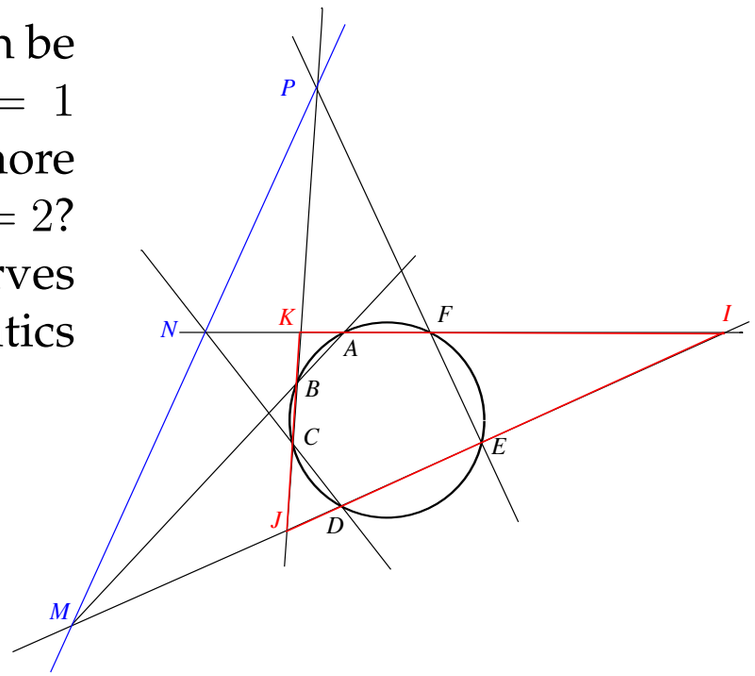
Thursday at 4pm in the Nesbitt Room
Free Pizza and Pop



Algebraic curves and classical geometry

Jakub Witaszek • 10 October 2019

The most basic objects in planar geometry can often be described by polynomials, for example, $x^2 + y^2 = 1$ is an equation of a circle. But what if we took a more complicated formula, say $x^2+y^3 = 1$ or $x^4+xy+y^4 = 2$? Such more advanced shapes are called algebraic curves and they play a vital role in the field of mathematics called algebraic geometry.



In this talk we will discuss, by looking at Pascal's and Pappus's theorems, how the study of algebraic curves can help us in understanding classical geometry better.