

The Math/Stats Colloquium Department of Mathematics and Statistics San José State University



Frank Sottile

Texas A&M

Some algebraic geometry in applications

October 14, 2015, MH320

Abstract: Algebraic geometry is the study of sets which arise as the common zeroes to a collection of polynomials. It is a deep and powerful subject, combining geometric intuition with algebraic precision. It is also increasingly a useful tool in applications of mathematics, for whenever polynomials arise, the methods of algebraic geometry may be brought to bear on the problem at hand.

I will illustrate this growing trend through a series of interrelated examples of algebraic geometry arising in applications.

Background: A first course in linear algebra.

About the speaker: Frank Sottile is a professor of Mathematics at Texas A&M and a fellow of the AMS. He was the founding chair of the Society for Industrial and Applied Mathematics' Activity Group on Algebraic Geometry. His research ranges from combinatorics to numerical analysis, passing through algebraic geometry.

> SNACKS IN MH331B AT 2:30 PM TALK STARTS AT 3 PM

For more information, see our full schedule at:

http://www.math.sjsu.edu/~hsu/colloq/