Michigan Math Club

Friday at 12pm in the Nesbitt Room
Free Pizza and Pop

Where is the cone?

Drew Armstrong
University of Miami

Abstract for 23 March 2018
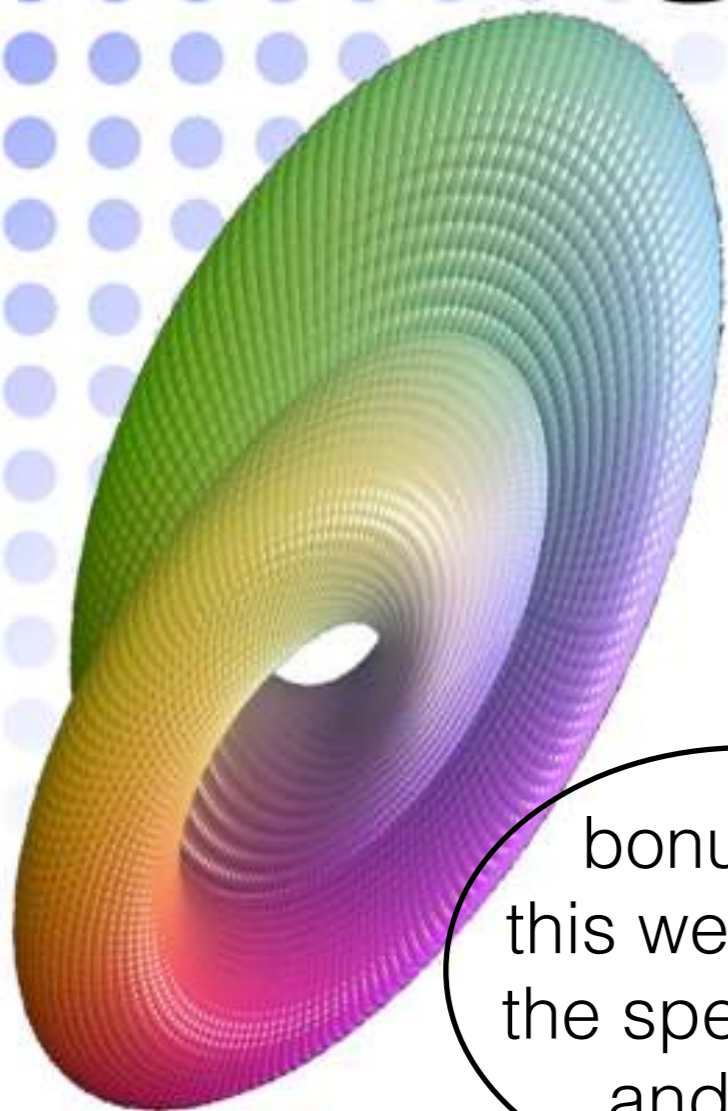
bonus talk this week! note the special day and time

It is well known that a plane section of a circular cone is an ellipse, a hyperbola, a parabola, or a pair of lines. But what about the converse? That is: given an ellipse or hyperbola, etc. in the xy-plane, how can we realize it as the section of a circular cone in xyz-space? There is a beautiful answer to this question that was well-known in the late 1800s and early 1900s but has been mostly forgotten today. I will present this answer in up-to-date language.

Math Club Challenge: in celebration of this talk, we will hide a cone somewhere in the U(M) Math Department. Be the first to find it and win a free math t-shirt! Come to the talk for hints about where to look for the cone.