



DEPARTMENT OF
MATHEMATICS
Illinois State University

Undergraduate Colloquium in Mathematics

Title: Do not disturb my circles: Ancient Greek Mathematics and Dynamic Geometry Software

Speaker: Óscar Chávez

Location: STV 350A

Time: 1:00 pm - 1:50 pm on Thursday (01/30/2020)

Abstract:

Greek mathematicians used very creative methods to explore extremely difficult problems. Dynamic geometry software can be very helpful to examine how Archimedes determined the volume of a sphere and how Eratosthenes, not limited by using only straightedge and compass, solved the problem of duplicating the cube. Archimedes and Eratosthenes not only solved these problems, but developed what Archimedes called the method of investigating "some of the problems in mathematics by means of mechanics," which can be illustrated with technology. In this session I will give a brief overview of Greek mathematical thought and the importance of these problems, will discuss some of the problems solved by the Greeks using *mechanical* means.

Μὴ μου τοὺς κύκλους τάραττε