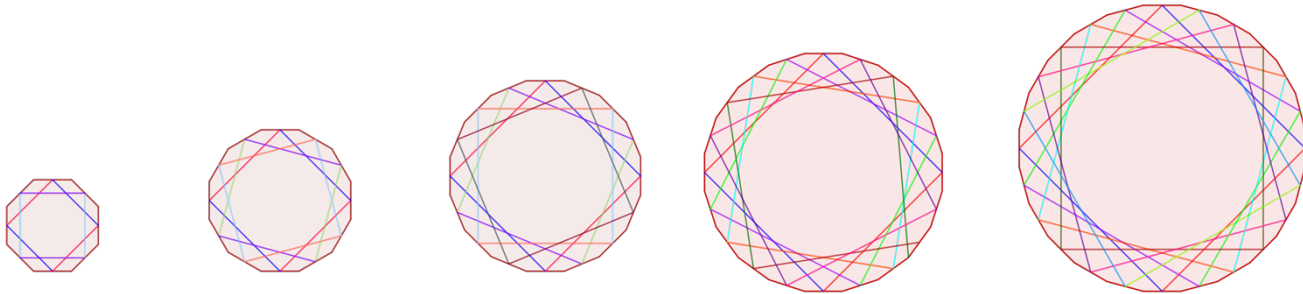


Curves on Surfaces

Aisha Mechery A.B./M.A. '20



How many curves fit on a surface of genus g such that each pair of curves intersects k times? This is a question at the intersection of surface topology and combinatorial design theory that has been studied in the last few decades. We will cover some background material in basic topology, including the classification of compact surfaces, Euler characteristic and the first homology group. We will also prove some simple results related to the question posed above. This talk is based on material from the Summer@ICERM 2018 REU program. No topology background is expected, although some familiarity with linear algebra will be helpful.

Date: Wednesday March 6, 2019

Time: 7:00 pm

Place: Park 328