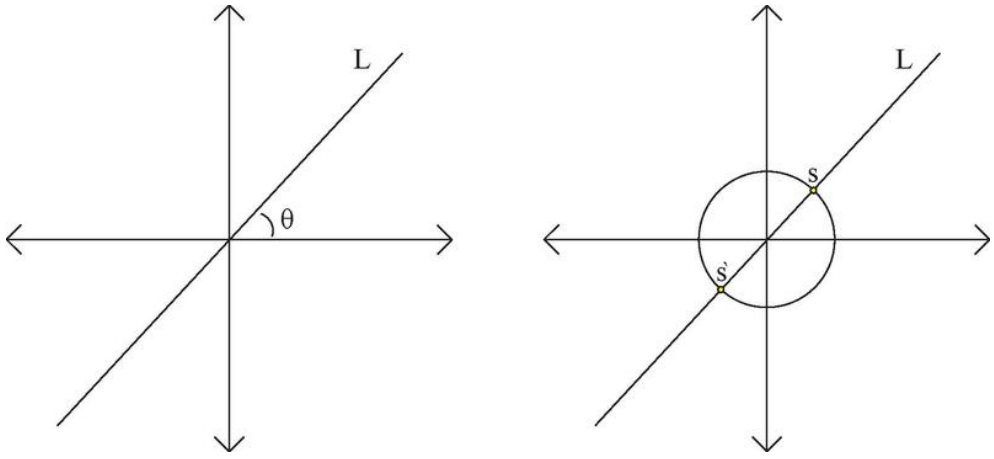
The SUMO Speaker Series for Undergraduates

Tuesday May 30th, 5:30 – 6:20PM
Casper Dining, Manzanita Multipurpose Room (661 Escondido Road)

Please feel free to bring in dinner from Casper Dining before the talk.

Moduli Spaces from Geometry and Physics



Laura Fredrickson

Abstract

Many important problems in math concern classification. Moduli spaces can be thought of as geometric answers to geometric classification problems, such as "what is the space of all lines in $\mathbb{R}^2$? through the origin?" In this talk, I'll introduce and motivate the idea of a moduli space through a number of concrete examples, such as the moduli space of polygons. For most of the talk, we'll focus on moduli spaces that arise from algebraic geometry, but towards the end we'll discuss how moduli spaces arise in physics. These moduli spaces coming from physics have particularly rich geometric structures, and are a subject of ongoing research.

http://sumo.stanford.edu/speakers.html