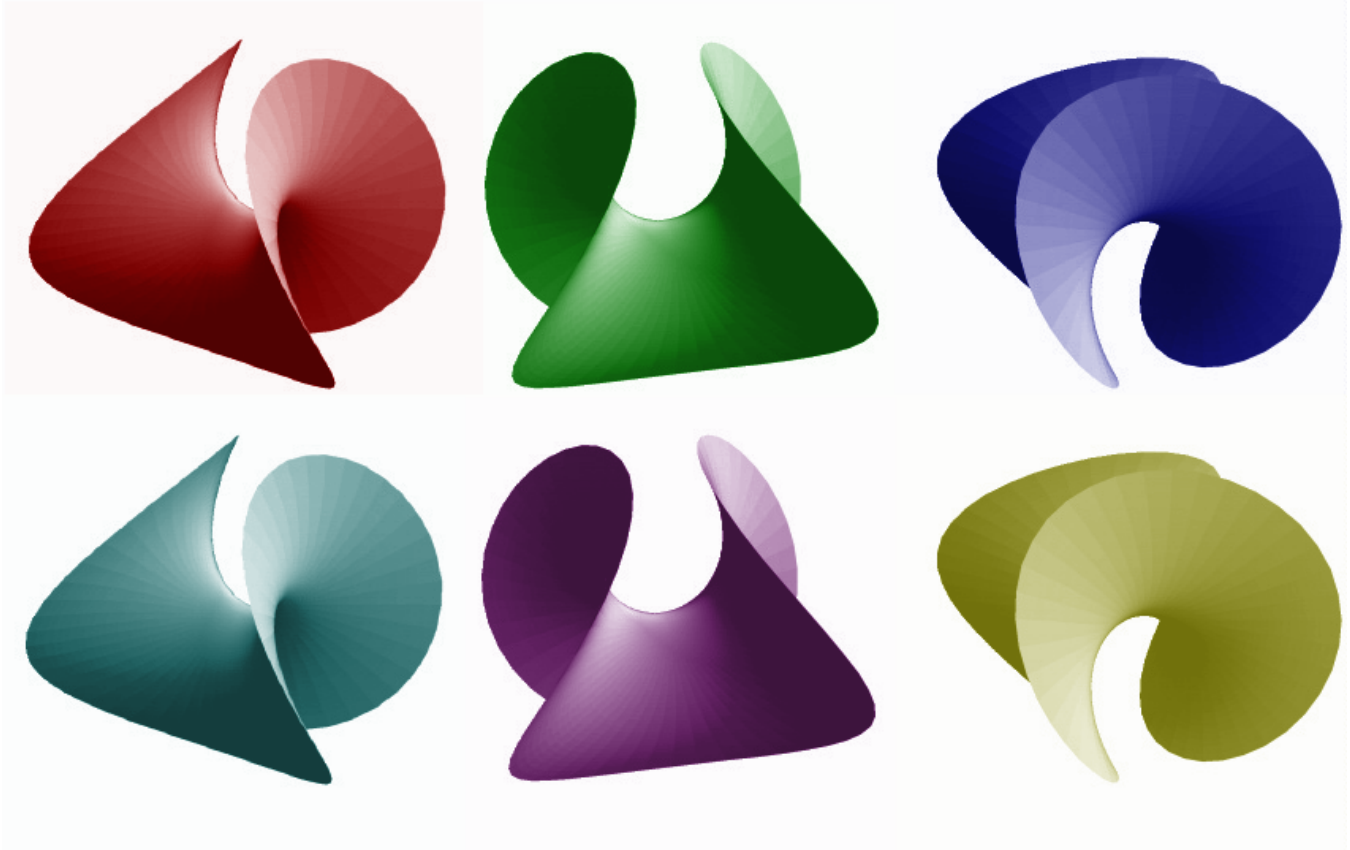


# Søren Galatius

## Moduli spaces and homotopy theory



**Abstract:** Very broadly, a moduli space is a space whose points are in bijection with isomorphism classes of a certain kind of geometric object. For example, two triangles in the plane are congruent if and only if they have the same side lengths. So the moduli space of triangles is homeomorphic to the space

$$\{(x, y, z) \in \mathbb{R}^3 : 0 < x \leq y \leq z, z < x + y\}.$$

A more interesting example is the moduli space of Riemann surfaces. This has been studied from many different points of view. I will discuss how some techniques from homotopy theory can be used to give new insights into this and other moduli spaces.

Monday, October 23, 2006, 12:15–1:05pm, 383N

*refreshments will be provided*

<http://math.stanford.edu/~emalm/fars/>