Tarik Aougab, Max Lahn, Marissa Kawehi Loving* (mloving6@gatech.edu) and Yang Xiao. Covers and Curves.

It is a celebrated result of Scott that every closed curve on a hyperbolic surface lifts to a simple closed curve on some finite cover. In the spirit of this work we pose the following question,

What information about two covers X and Y of S can be derived by understanding how curves on S lift simply to X and Y?

In this talk, we will give our motivation for asking this question and explore its answer for regular finite covers of a closed hyperbolic surface. This work is joint with Tarik Aougab, Max Lahn, and Yang (Sunny) Xiao (Received September 12, 2020)