Jim Belk, Justin Lanier* (jlanier8@gatech.edu), Dan Margalit and Becca Winarski.

Solving the twisted rabbit problem with mapping class group techniques. Preliminary report.

After remaining open for more two decades, Hubbard's twisted rabbit problem was solved by Bartholdi–Nekrashevych using iterated monodromy groups. Using their work as a guide, we give an alternate solution that involves lifting curves and mapping classes through branched covers. Our method easily generalizes to an infinite family of critical portraits, yielding new results. This is joint work with Jim Belk, Dan Margalit, and Becca Winarski. (Received January 28, 2019)