

Oklahoma State University

Topology Seminar

Title

Hyperbolic geometry of weakly generalised alternating knots

Speaker: Josh Howie, Monash University
Date: May 4, 2017
Time: 3:30 PM
Room: MSCS 428

Abstract: It is a challenge in knot theory to derive geometric information about a link complement from a diagram of that link. Over the years, this program has had particular success in the case of planar alternating diagrams. In this talk, we study a class of links which have alternating diagrams onto closed orientable surfaces of higher genus. Under certain conditions on these diagrams we are able to deduce geometric information such as whether the link complement is hyperbolic or whether the associated checkerboard surfaces are quasifuchsian. We can also obtain hyperbolic volume bounds and rule out some exceptional surgeries. (This is joint work with Jessica Purcell)

Note the special day