Hanbo Shao* (hanbo.shao@coloradocollege.edu) and Lyujiangnan Ye (jiangnan.ye@coloradocollege.edu). On Computing Slice Genus of Non-alternating Prime Knots.

Knot genus, in both the 3- and 4-dimensional settings, is a well-studied knot invariant. In this project, we calculate the smooth slice genus of the last remaining non-alternating prime knots of twelve or fewer crossings for which this invariant is previously unknown - 11 in all. We do this by performing band moves - additions and deletions - on a knot $K$ to produce a torus cobordism in 4-ball with another knot $J$, and the slice genera of two knots are merely differed by one. Regarding different types of knots, we applied various methods to deduce the slice genus of $K$ via analysis of $J$. (Received September 25, 2017)