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(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)