

Conjectures and Questions

Conjecture 1: There are an infinite number of virtual knot diagrams that are not detected by the N -strand bracket polynomial for $N < 2$ and the fundamental group. These diagrams are detected by applying the methods discussed in this poster.

Conjecture 2: Using these methods, we may prove that virtual knot diagrams obtained by virtualizing a single crossing in a classical knot diagram are not classical unless the original diagrams satisfy specific criterion.

Conjecture 3: The 3-strand bracket polynomial detects all non-trivial virtual knot diagrams.

Question: Using minimal surfaces, can we be realize a version of Kirby calculus and Seifert surfaces for virtual knot diagrams.

