

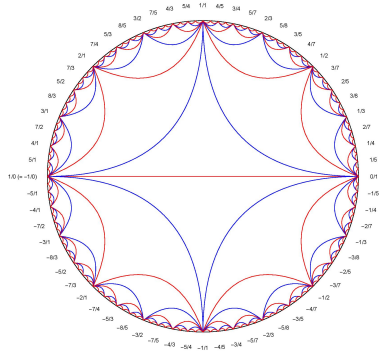
Student Research Talks (StReeTs)

Mason Experimental Geometry Lab (MEGL)

The Thickened T-Shirt and its Kauffman Bracket Skein Algebra

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Abstract

The 1980s were marked by a flurry of activity in the field of knot theory after Vaughan Jones' discovery of a link invariant, now known as the Jones polynomial. In 1986, Louis Kauffman gave a nice description of this polynomial via the bracket polynomial. Soon thereafter, Józef H. Przytycki introduced skein modules as a way to extend all of these link polynomials to links in arbitrary 3-manifolds.

Since their discovery, skein modules have become central to the theory of 3-manifolds. In 1997, Charles Frohman and Razvan Gelca established a compact product-to-sum formula for the Kauffman bracket skein algebra of the torus times the interval. We try to discover a similar formula for the multiplication of curves in the thickened sphere with four holes and I will present some of our results to this end. This is joint work with Sujoy Mukherjee, Józef Przytycki, Marithania Silvero and Xiao Wang.

Date: Friday, November 09, 2018

Time: 2:30pm–3:20pm

Place: Exploratory Hall 4106

Pizza and soda will be served at the presentation.

For further information or for special accommodations, please contact Sean Lawton via email at slawton3@gmu.edu or drop by the MEGL.