

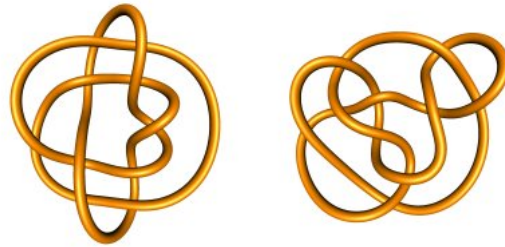
Student Research Talks (StReeTs)

Mason Experimental Geometry Lab (MEGL)

Algebraic Structures in Knot Theory

Sujoy Mukherjee

Department of Mathematics
George Washington University



Abstract

Historically, sets with self-distributive binary operations have been studied since the 1920s in different areas of mathematics under different names. Quandles are self-distributive algebraic structures with axioms motivated by the three Reidemeister moves in knot theory. Racks, spindles, and shelves are obtained by weakening the axioms of a quandle. One term and two term (rack) homology theories of these algebraic structures are studied extensively for their applications to knot theory. In my talk, after a brief introduction to these algebraic structures, I will discuss recent results in these homology theories and knot invariants related to them.

Date: Friday, November 3, 2017

Time: 2:30pm–3:30pm

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 seanlawton@gmail.com or drop by the MEGL.