

1106-54-2766

Dylan Peifer (djp282@cornell.edu), **Martin D. Bobb*** (mbobb@math.utexas.edu), **Helen Wong** (hwong@carleton.edu) and **Stephen Kennedy** (skennedy@carleton.edu). *A Finite Set of Generators for the Arc Algebra.*

Let $F_{g,n}$ denote the compact orientable 2-manifold with genus g and n punctures. The arc algebra of $F_{g,n}$, developed by Roger and Yang in 2011, is a generalization of the Kauffman bracket skein algebra that allows for framed arcs between punctures. In this paper we generalize results of Doug Bullock on the skein algebra to find a finite set of generators for the arc algebra of $F_{g,n}$. This generating set consists only of arcs for the punctured sphere and is also significantly smaller than the generating set of the skein algebra when the surface has 5 or more punctures. (Received September 16, 2014)