

1173-57-190

Miriam Kuzbary* (mkuzbary3@gatech.edu) and **Santana Afton**
(santana.afton@gatech.edu). *Asymptotics of the Casson invariant for Rational Homology
Spheres*. Preliminary report.

In this ongoing project with Santana Afton, we are working to bound the Casson invariant of rational homology spheres in terms of word length in the mapping class group inspired by work of Broaddus, Farb, and Putman in the case of integral homology spheres. Along the way, we prove a result on the Casson invariant of a product of mapping classes which, when used as gluing maps for a Heegaard splitting, give rational homology spheres. (Received September 20, 2021)