Topology, Arithmetic, & Dynamics Seminar

Free products and regularity of group actions

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It is a well-known fact that if G and H are groups of homeomorphisms of the interval or of the circle, then the free product $G * H$ is also a group of homeomorphisms of the interval or of the circle, respectively. I will discuss higher regularity of group actions, showing that if G and H are groups of C^∞ diffeomorphisms of the interval or of the circle, then $G * H$ may fail to act by even C^2 diffeomorphisms on any compact one-manifold. As a corollary, we can classify the right-angled Artin groups which admit faithful C^2 actions on the circle, and recover a joint result with H. Baik and S. Kim. This is joint work with S. Kim.

Date: **Friday, September 15, 2017**
Time: **2:30-3:20 pm**
Place: **4106 Exploratory Hall**

For special accommodations, please contact Sean Lawton via email at `slawton3@gmu.edu`.