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Groups Acting on the Circle

Given a group $G$ and a manifold $M$, can one describe all the actions of $G$ on $M$? This is a basic and natural question from geometric topology, but also a very difficult one — even in the case where $M$ is the circle, and $G$ is a familiar, finitely generated group.

In this talk, I’ll introduce you to the theory of groups acting on the circle, building on the perspectives of Ghys, Calegari, Goldman and others. We’ll see some tools, old and new, some open problems, and some connections between this theory and themes in topology (like classifying foliations) and dynamics.