

**Emily Dryden**

*The Steklov problem on orbisurfaces*

**Abstract**

We examine how the geometry and topology of a compact two-dimensional Riemannian orbifold with boundary relates to its Steklov spectrum. In one direction, we consider the inverse problem: does the Steklov spectrum completely determine the geometry and topology of the boundary? What interior features of the orbifold does the Steklov spectrum detect? In another direction, we bound the Steklov eigenvalues solely in terms of geometric and topological data.

This is based on joint work with Teresa Arias-Marco, Carolyn Gordon, Asma Hassannezhad, Allie Ray, and Elizabeth Stanhope.