

Closed geodesics on surfaces: topology, geometry, arithmetic

Francisco Arana-Herrera

Abstract: Closed geodesics on surfaces can be studied from different points of view: topology, geometry, arithmetic. In this talk we discuss the question of how homologically complicated are long simple closed geodesics on hyperbolic surfaces. The approach of the discussion is via Teichmüller dynamics. This talk encompasses joint work with Giovanni Forni and joint work in progress with Pouya Honaryar.