

Tobias Weich

Title: Resonance chains on Schottky surfaces

Abstract: Recently David Borthwick discovered through numerical calculations surprising chain structures in the resonance spectrum of certain Schottky surfaces. In this talk we will see that these resonance chains have the same origin as the resonance chains in the classical and quantum mechanical spectrum of the three disk system and we will see that they are related to a clustering in the length spectrum. Finally the existence of these chains will be proven for three funneled Schottky surfaces in a certain geometrical limit in the Teichmüller space.