Abstract

In the higher Teichmuller theory, particular distinguished components of the space of surface group representations into a Lie group often correspond to geometric objects. In the case where the Lie group is PSL(2,R) × PSL(2,R), and the representation is maximal, the associated geometric objects are given by the unique minimal lagrangian isotopic to the identity between the pair of hyperbolic surfaces the representation defines. We look at the asymptotic behavior of these minimal surfaces viewed as projectivized geodesic currents and describe the frontier as the space of mixed structures, geometric structures on a surface that are part flat and part laminar. In the second part of the talk, we will show the projective geometric limits of the minimal lagrangians are given by the core of a pair of R-trees.