Sam Houston State University
A Member of The Texas State University System
DEPARTMENT OF MATHEMATICS AND STATISTICS

Geometric Structures associated to Higher Teichmüller Theory

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Time: 1:00 – 1:50 pm
Location: LDB 400

Abstract

The Teichmüller space of a surface S is the space of marked hyperbolic structure on S, up to equivalence. By considering the holonomy representation of such structures, this space can also be seen as a connected component of representations from the fundamental group of S into Isom(H^2). Generalizing this point of view, Higher Teichmüller Theory studies connected components of representations from the fundamental group of S into Lie groups of rank greater than 1.

We will discuss parts of the classical theory of deformations of geometric structures, Higher Teichmüller Theory and the notion of Anosov representation. We will then describe how Anosov representations correspond to deformation of certain geometric structures, and a joint work with Alessandrini, Tholozan and Wienhard about their topology.