

# Topology, Arithmetic, & Dynamics Seminar

$SO(p, q)$ -surface group representations

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Representations of the fundamental group of a closed surface into the Lie group  $SO(p, q)$  are particularly interesting. For instance, when  $p = 1$  and  $q = 2$ , the Teichmüller space of the surface is identified with the connected component of Fuchsian representations. In this talk we will focus on two directions of generalizing Fuchsian representation, namely we will focus on the groups  $SO(p, p + 1)$  and  $SO(2, q)$ . In both cases, we will use the theory of Higgs bundles to parametrize connected components and build interesting geometric structures associated to these representations.

Date: **Friday, December 2, 2016**

Time: **2:30-3:20 pm**

Place: **4106 Exploratory Hall**

For special accommodations, please contact Sean Lawton via email at [slawton3@gmu.edu](mailto:slawton3@gmu.edu).