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Mathematics Colloquium

Teichmüller theory and higher

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(CNRS / École Normale Supérieure)

Abstract

Teichmüller theory is the study of the geometric properties of the space of complex structures on a closed surface. Using Poincaré's uniformisation theorem, one can identify this space to a connected component of the character variety of the fundamental group of the surface into the Lie group $\mathrm{PSL}(2,\mathbb{R})$.

A recent field of research, sometimes called *higher Teichmüller theory*, aims at finding analogs of the Teichmüller space in character varieties of surface groups into higher rank Lie groups. In this talk I discuss these possible analogies. In particular, I will explain how to embed all "higher Teichmüller spaces" into the Teichmüller space of a 2-dimensional foliation, constructed by Sullivan.

Wednesday, 27 September 2017, 4pm

Smith Hall 204

Tea and refreshments will be served at 3:45pm.