Séminaire d'algèbre, topologie et géométrie
Jeudi 24 novembre à 14h
Salle de conférences

Alex Nolte

Georgia Tech

Higher Complex Structures and $SL(3, R)$ Hitchin Components

A source of richness in Teichmüller theory is that Teichmüller spaces have descriptions both in terms of group representations and in terms of hyperbolic structures and complex structures. A program in higher-rank Teichmüller theory is to understand to what extent there are analogous geometric interpretations of Hitchin components. In the first part of this talk, I will motivate and explain the definition of higher complex structures–analogues of complex structures introduced by Fock and Thomas that are conjectured to parameterize $PSL(n, R)$ Hitchin components. In the second part of this talk, I will discuss methods to analyze the intrinsic structure of Fock-Thomas spaces, and discuss how to parameterize the $SL(3, R)$ Hitchin component using degree-3 complex structures.