



Teichmüller Theory Seminar

Hitchin equations for Higgs bundles of quiver type

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Abstract

Given a G -Higgs bundle over a Riemann surface, there is a unique equivariant harmonic map into the associated symmetric space through solving Hitchin equation to Higgs bundles. In this talk, we re-discover a maximal principle for a type of coupled elliptic systems and apply it to analyze the Hitchin equations associated to the Higgs bundles of quiver type. In this case, the harmonic map is weakly conformal and hence minimal. In this way, we find geometric properties of the associated branched minimal immersions into the symmetric space G/K . In particular, we find several domination results of the pullback metrics of the branched minimal immersion and negative curvature properties. This is joint work with Song Dai.

Monday, 20 March 2017, 4pm

Smith Hall 204