Qiongling Li* (ql4@rice.edu). Teichmüller Space Is Totally Geodesic In Goldman Space. Preliminary report.

In this talk, we construct a new Riemannian metric on Goldman space, the deformation space of convex real projective structures on a compact genus $g (g>1)$ surface, and then prove the new metric and the metric of Darvishzadeh and Goldman both restrict to be Weil-Petersson metric on Teichmüller space. Moreover, Teichmüller space endowed with Weil-Petersson metric is totally geodesic in Goldman space, as a Riemannian manifold. Finally, we consider a circle action on Goldman space and prove it preserves the metric. (Received September 10, 2012)