

Mathematics Colloquium

Xiaofeng Sun

Lehigh

**The Metric Geometry
of the Moduli Space
of Riemann Surfaces**

Abstract: In this talk we will survey recent works on the geometry of moduli spaces. New metrics with good curvature and asymptotic properties will be introduced. We will also discuss the applications to algebraic geometry such as the stability of log cotangent bundles and vanishing of L^2 cohomology groups based on the Mumford goodness of various Kähler metrics and dual Nakano negativity of the Weil-Petersson metric.

Wednesday, April 4

**4:00-5:10 pm
204 Smith Hall**