Maryam Mirzakhani* (mmirzakh@math.princeton.edu), Princeton University, Fine Hall, 904, Washington Road, Princeton, NJ 08544. Geometry of surfaces, laminations, and dynamics over the moduli of Riemann surfaces.

The moduli space of Riemann surfaces plays an important role in different branches of mathematics. In this talk we will discuss some geometric properties of these moduli spaces, and explain their relationship with Thurston's space of measured laminations. We will discuss some applications and related open problems motivated by the analogy between the moduli space of surfaces and homogeneous spaces of Lie groups. (Received June 19, 2008)