1060-51-39   **William P. Cavendish*** (`wcavendi@math.princeton.edu`), Fine Hall, Washington Road, Princeton, NJ 08544. *Growth of the Weil-Petersson Diameter of Moduli Space.*

The Weil-Petersson metric is a non-complete Kähler metric on the moduli space of Riemann surfaces $\mathcal{M}_{g,n}$ whose completion is the Deligne-Mumford compactification $\overline{\mathcal{M}}_{g,n}$. I will give a brief overview of the geometric properties of this space and describe how the Riemannian geometry at a point $X \in \mathcal{M}_{g,n}$ depends on the hyperbolic geometry of the uniformization of X. I will then present joint work with Hugo Parlier that determines the growth of the diameter of $\overline{\mathcal{M}}_{g,n}$ as g or n goes to infinity. (Received March 07, 2010)