1019-53-103 **Kenneth Chung-kan Chu*** (chu@math.utexas.edu), TX. *On the geometry of the moduli space of real binary octics.*

The moduli space of smooth real binary octics has five connected components, respectively parametrizing the real binary octics with 0, 1, ..., 4 complex-conjugate pairs of roots. In this talk, we describe a hyperbolic structure on the GIT-stable completion of each component as an arithmetic quotient of real hyperbolic 5-space, following earlier work of Allcock-Carlson-Toledo on real cubic surfaces. We will also explain how to see that the Allcock-Carlson-Toledo construction of the moduli space of stable real binary octics fails to be a hyperbolic orbifold. (Received August 09, 2006)