1035-11-872   **Eric Errthum*** (`eerrthum@winona.edu`), Winona State University, 175 West Mark Street, Winona, MN 55987. *Singular Moduli of Shimura Curves.*

The j-function acts as a parameterization of the classical modular curve. Its values at complex multiplication (CM) points are called singular moduli and are algebraic integers. A Shimura curve is a generalization of the modular curve and, if the Shimura curve has genus 0, a rational parameterizing function evaluated at a CM point is again algebraic over $\mathbb{Q}$. This talk will demonstrate that the coordinate maps for the Shimura curves associated to the quaternion algebras with discriminants 6 and 10 are Borcherds lifts of vector-valued modular forms. This property is then used to explicitly compute the rational norms of singular moduli on these curves. This method not only verifies conjectural values for the rational CM points on these Shimura curves, but also provides a way of algebraically calculating the norms of irrational CM points with arbitrarily large negative discriminant. (Received September 17, 2007)