1077-47-1313 Flavia Colonna* (fcolonna@gmu.edu), 4400 University Drive, Fairfax, VA 22030, and Glenn R. Easley and David Singman. Norm of the multiplication operators from H^{∞} to the Bloch Space of a bounded symmetric domain.

Let f be a complex-valued holomorphic function on a bounded homogeneous domain D in \mathbb{C}^N containing the origin. For $z \in D$ define

$$Q_f(z) = \sup_{u \in \mathbb{C}^N \setminus \{0\}} \frac{|(\nabla f)(z)u|}{H_z(u,\overline{u})^{1/2}},$$

where ∇f is the gradient of f and H_z is the Bergman metric on D at z. The Bloch space of D is the Banach space \mathcal{B} of holomorphic functions f such that $Q_f = \sup_{z \in D} Q_f(z) < \infty$ with norm $||f||_{\mathcal{B}} = |f(0)| + Q_f$.

In this talk, we determine the operator norm of the bounded multiplication operator from the space of bounded holomorphic functions on a bounded symmetric domain D to \mathcal{B} when the symbol fixes the origin. If no restriction is imposed on the symbol, we have a formula for the operator norm when D is the unit ball or has the unit disk as a factor. The proof of this result for the latter case makes use of a minimum principle for multiply superharmonic functions. We also show that there are no isometries among the multiplication operators when the domain does not have exceptional factors or the symbol fixes the origin. (Received September 19, 2011)