1056-13-1484 **W. Frank Moore** and **Greg Piepmeyer*** (piepmeyerg@missouri.edu), 202 MSB, Univ. of Missouri, Columbia, Columbia, MO 65211, and **Sandra Sprioff** and **Mark E Walker**.

Hochster's Theta invariant and the Hodge-Riemann bilinear relations.

The theta invariant is defined for certain hypersurface rings. It is a bilinear pairing on modules, and is related to Serre's intersection multiplicity.

This talk will discuss an answer to a conjecture concerning the vanishing of this invariant when the ring contains a coefficient field and is of even dimension. (Received September 21, 2009)