# *Colloquium*

**Speaker:** Anthony Várilly-Alvarado
Rice University, Huston, TX

Tuesday, January 17, 2012
4:15 PM
117 Hayes-Healy Hall

**Title:** Explicit Arithmetic on Algebraic Surfaces

**Abstract:**

The geometric complexity of a variety is a good proxy for its arithmetic complexity.  Using the classification of algebraic surfaces as a guide for geometric complexity, we will discuss explicit techniques for computing cohomological obstructions to the existence and distribution of rational points on algebraic surfaces, with a view toward identifying a boundary between arithmetically "well-behaved" varieties, like rational surfaces, and arithmetically "wild" varieties, like surfaces of general type.