

1125-11-2733

**Jennifer Berg\*** (jb93@rice.edu). *Brauer Manin Obstruction for a family of surfaces.*

A problem of great interest in number theory is determining whether a polynomial equation has a rational or integral solution. A necessary condition is local solubility, however this is generally not sufficient to guarantee a "global" (integer or rational) solution. In order for local solutions to come from a common global solution, it turns out that they must satisfy certain compatibility conditions that can arise from quadratic reciprocity and higher reciprocity laws. These conditions are known as the Brauer-Manin obstruction. In this talk, I will describe recent work on computing this obstruction for families of affine surfaces (fibered over the affine line). (Received September 20, 2016)