1075-13-136 **Jesse Beder**, **Jason McCullough*** (jmccullo@math.ucr.edu), **Luis Nunez-Betancourt**, **Alexandra Seceleanu**, **Bart Snapp** and **Branden Stone**. *Ideals with Large Projective Dimension and Stillman's Question.*

Let $R = K[x_1, \ldots, x_n]$ be a polynomial ring over a field K. Let $I = (f_1, \ldots, f_g)$ be a homogeneous ideal of R and set $d_i = degree f_i$. Stillman asked if there is a bound, dependent only $d_1, \ldots, d_g$. In this talk, we present a new construction of a family of ideals with large projective dimension relative to the degrees of the generators. In particular, we define an ideal over an arbitrary field with three degree d generators with projective dimension larger that $\sqrt{d}^{\sqrt{d}}$. Thus any answer to Stillman's Question must be very large. (Received August 26, 2011)