1077-14-1663 **Michael A. Burr*** (mburr1@fordham.edu), Mathematics Department, 441 E Fordham Rd., Bronx, NY 10458. *Asymptotic Purity for Very General Hypersurfaces of Products of Projective Spaces.*

For a complex irreducible projective variety, the asymptotic cohomological functions were introduced by Küronya and Demailly to measure the growth rate of the cohomology of high tensor powers of an invertible sheaf. These functions have proven to be useful in understanding the positivity of divisors as well as other geometric properties of the variety. In this talk I will define a strong vanishing property, called asymptotic purity, and prove that very general hypersurfaces of $\mathbb{P}^n \times \mathbb{P}^n$ of bidegree (k,k) have this property. These examples provide evidence for the truth of a conjecture of Bogomolov concerning asymptotic purity. (Received September 20, 2011)