

1084-14-66

Anders Jensen and **Josephine Yu*** (jyu@math.gatech.edu). *Stable Intersection of Tropical Varieties.*

We give several characterizations of stable intersections of tropical varieties and locally balanced fans in general. For tropical hypersurfaces of polytopes, the multiplicity of stable intersection is the mixed volume. The stable intersection of tropical varieties is the tropical variety of a “perturbed” intersection of varieties. These facts together give a proof of the Bernstein’s Theorem. We will also show that computing stable intersection is equivalent to computations in the polytope algebra of McMullen. (Received August 19, 2012)