David Jensen:Â **Tropical Independence and the Maximal Rank Conjecture for Quadrics**

The maximal rank conjecture, which has roots in the work of Noether and Severi in the late 19th and early 20th centuries, predicts the Hilbert function of the general embedding of a general curve. Â In recent joint work with Sam Payne, we show that this conjecture holds for the Hilbert function evaluated at m=2, meaning that such a curve is contained in the expected number of independent quadrics. Â From this we deduce that the general curve of genus g and degree d in projective space of dimension r is projectively normal if and only if (r+2)(r+1)/2 is at least 2d-g+1. Â Our proof uses techniques from tropical and nonarchimedean geometry.