1120-13-188   **Bill F. Trok*** (`william.trok@uky.edu`) and **Uwe Nagel**. *The generalized segre bound for arbitrary fat points.* Preliminary report.

Segre established an upper bound for the Castelnuovo-Mumford regularity of a planar scheme of generic fat points. A generalization of this bound has been conjectured to hold for schemes of arbitrary fat points in projective n-space. While in general the conjecture remains open, certain cases are known. In particular, if the points are in linearly general position the bound holds. In this talk, we discuss some partial results on the conjecture, as well as some results on the geometry of small collections of points with applications to this conjecture. (Received February 21, 2016)