1092-13-81 Brian Harbourne and Alexandra Seceleanu\* (aseceleanu@unl.edu). Regular versus symbolic powers for ideals of points.

When I is the radical homogeneous ideal of a finite set of points in projective N-space, it has been conjectured by Harbourne and Huneke that  $I^{(rN-N+1)}$  should be contained in  $I^r$  for all  $r \ge 1$ . A recent counterexample of Dumnicki, Szemberg and Tutaj-Gasinska shows that this can fail when N = r = 2. In this talk, we show that failures occur for infinitely many r in every characteristic p > 2 when N = 2 and we find additional positive characteristic failures when N > 2. (Received July 29, 2013)