1057-13-108 Christopher A. Francisco* (chris@math.okstate.edu), Department of Mathematics, Oklahoma State University, 401 Mathematical Sciences, Stillwater, OK 74078, and Huy Tài Hà and Adam Van Tuyl. Hypergraph colorings, perfect graphs, and associated primes.

I will discuss joint work with Hà and Van Tuyl connecting the associated primes of powers of cover ideals of hypergraphs to coloring properties of closely related hypergraphs. As a consequence of this work, we get new purely algebraic characterizations of perfect graphs, independent of the Strong Perfect Graph Theorem. (Received January 14, 2010)