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**Jennifer Biermann\*** (jvbierma@lakeheadu.ca), **Christopher Francisco**, **Huy Tài Hà** and **Adam Van Tuyl**. *Colorings of simplicial complexes and vertex decomposability*.

In attempting to understand how combinatorial modifications alter algebraic properties of monomial ideals, several authors have investigated the process of adding “whiskers” to graphs. The first and the fourth authors developed a similar construction to build a vertex decomposable simplicial complex  $\Delta_\chi$  from a coloring  $\chi$  of the vertices of a simplicial complex  $\Delta$ . In this talk, we will discuss this construction for colorings of subsets of the vertices, and how it can be used to strengthen and give new proofs for results of the second and third author. (Received August 28, 2012)