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Jennifer Biermann* (biermann@hws.edu), **Morgan Gauvin**, **Hugh Mckenny** and **Carlos Munoz**. *Star ideals of graphs*. Preliminary report.

We study a generalization of the edge ideal of a graph called a star ideal in which the minimal monomial generators of the ideal come from subgraphs which are isomorphic to the complete bipartite graph $K_{1,t}$ for a fixed value of t . Unlike the case of edge ideals, there is not a bijection between finite simple graphs and star ideals of graphs. We discuss combinatorial criteria for when a given ideal is the star ideal of a graph as well as algebraic properties of the ideals. (Received January 28, 2019)