1106-VN-1777 **Brent Moran*** (brent.moran@ucdenver.edu), **Matt Mowrey** (matthew.mowrey@ucdenver.edu) and **Michael Ferrara** (michael.ferrara@ucdenver.edu).
Ramsey-Minimal Saturation Numbers for Sets of Stars.

A graph G is $\mathcal{F}$*-saturated* for a family $\mathcal{F}$ of graphs if G contains no member of $\mathcal{F}$ as a subgraph, but for any edge $e \in E(\overline{G})$, some member of $\mathcal{F}$ is a subgraph of $G + e$. The *saturation number* $\mathrm{sat}(n, \mathcal{F})$ is the minimum number of edges in an $\mathcal{F}$-saturated graph of order n. If $\mathcal{F} = \{F\}$ for a single graph F, we say G is F*-saturated*, denoted $\mathrm{sat}(n, F)$.

Given a set $\{H_1, \ldots, H_k\}$ of graphs, a graph G is called $(H_1, \ldots, H_k)$*-Ramsey-minimal* if every k-coloring of $E(G)$ contains some H_i in color i, but for any edge $e \in E(G)$, some k-coloring of $G - e$ does not. We denote the family of $(H_1, \ldots, H_k)$-Ramsey-minimal graphs by $\mathcal{R}_{\min}(H_1, \ldots, H_k)$.

Motivated in part by a 1987 conjecture of Hanson and Toft, we prove a number of results about Ramsey-minimal saturation numbers for sets of stars. In particular, we give an upper bound on $\mathrm{sat}\big(n, \mathcal{R}_{\min}(K_{1,t_1}, \ldots, K_{1,t_p})\big)$ for arbitrary $t_1, \ldots, t_p$, and show that it is sharp when $p = 2$ and in several other cases. (Received September 15, 2014)