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Po-Shen Loh, Michael Tait and Craig Timmons* (craig.timmons@csus.edu). *Induced Turán numbers.*

Let $s \geq t \geq 2$ be integers and H be a non-bipartite graph. It is easy to see that the maximum number of edges in an n -vertex graph with no induced copy of $K_{s,t}$ is $\binom{n}{2}$ because K_n has no induced $K_{s,t}$. However, if we ask for the maximum number of edges in an n -vertex graph with no copy of H and no induced copy of $K_{s,t}$, then we can no longer use the complete graph. A $(\chi(H) - 1)$ -partite Turán graph, which will be H -free, cannot be used for a lower bound either because a sufficiently large Turán graph will contain induced copies of $K_{s,t}$. We will present some bounds on the number of edges in an n -vertex graph with no copy of H and no induced copy of $K_{s,t}$, as well as some related results involving clique counts. This is joint work with Po-Shen Loh and Mike Tait. (Received August 26, 2016)