

Meeting: 999, Nashville, Tennessee, SS 14A, Special Session on Graph Theory and Matroid Theory

999-05-152 **Michael Ferrara** and **Ronald Gould*** (rg@mathcs.emory.edu), Department of Math and Computer Science, Emory University, 400 Dowman Drive, Atlanta, GA 30322, and **John Schmitt**. *Potentially K_s^t - graphic degree sequences.*

We consider a variation of the classic Turan type extremal problem. Let π be an n -element graphical sequence and $\sigma(\pi)$ be the sum of the terms in π . Let G be a graph. The problem is to determine the smallest integer m such that any n -term graphical sequence π , having $\sigma(\pi) \geq m$ has a realization containing G as a subgraph. Denote this value by $\sigma(G, n)$. We determine a lower bound for $\sigma(K_s^t, n)$, where K_s^t denotes the complete multipartite graph with t partite sets, each of size s . We further prove equality in the case $s = 2$. (Received August 20, 2004)