

Two n -vertex graphs G_1 and G_2 *pack* if it is possible to express G_1 and G_2 as edge-disjoint subgraphs of K_n , or alternatively, if $G_1 \subseteq \overline{G_2}$. Let G_1 and G_2 be n -vertex graphs with maximum degrees $\Delta(G_i) = \Delta_i$ for $i = 1, 2$. A classic conjecture of Bollobás and Eldridge and, independently, Catlin says that if

$$(\Delta_1 + 1)(\Delta_2 + 1) \leq n + 1, \tag{1}$$

then G_1 and G_2 pack. A sequence $\pi = (d_1, \dots, d_n)$ is graphic if there is a simple graph G with vertex set $\{v_1, \dots, v_n\}$ such that the degree of v_i is d_i . G is said to be a realization of π . In this talk we show that graphic sequence analogs of the classic conjecture hold. In particular, if Equation 1 holds, then there exists some graph G_3 with the same vertex degrees as G_2 that packs with G_1 .