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*Degree constrained subgraphs in a graph*

At each vertex  $v$  of a graph  $G$  we partition the edges into  $k$  sets  $E_{v1}, E_{v2}, \dots, E_{vk}$ . Let  $0 \leq q_{vi} \leq p_{vi} \leq |E_{vi}|$ ,  $i=1,2,\dots,k$  and let  $0 \leq t_v \leq d_G(v)$ . We shall address the problem: can one find a subgraph  $H$  of  $G$  such that at each vertex  $v$ ,  $q_{vi} \leq |E(H) \cap E_{vi}| \leq p_{vi}$ ,  $i = 1, \dots, k$  and  $d_H(v) \leq t_v$  ?