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Neil Robertson* (robertso@math.ohio-state.edu), Department of Mathematics, Ohio State University, 231 West 18th Avenue, Columbus, OH 43210. *Excluding induced subgraphs by degree sequence.*

Graphs here are finite and simple. Suppose a graph G has degree sequence D and denote the class of graphs with degree sequence D by $R(D)$. Define a partial order on degree sequences D_1, D_2 by setting $D_1 \leq D_2$ if and only if graphs G_1 in $R(D_1), G_2$ in $R(D_2)$ exist with G_1 induced in G_2 . The object is to study, for a fixed D_1 , the structural effect on D_2 of excluding D_1 from D_2 . We take split graphs to be a basic class to study as they are determined by their degree sequences and these form a hereditary class under the partial order \leq . This talk is preliminary and conjectural. The problem is of interest as shedding light on induced subgraph exclusion structure and the conjecture of S. B. Rao that degree sequences of simple graphs are a well-partial-order under \leq . (Received September 27, 2006)