

# *Pseudo-split Graphs, a Decomposition Method, and the Chair Graph*

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A graph is *pseudo-split* if it induces no copy of  $2K_2$  or  $C_4$ . Well-known classes of pseudo-split graphs include the split and threshold graphs. In this talk we examine the  $\{2K_2, C_4, \text{chair}\}$ -free graphs and some related classes. Using a graph decomposition method due to R. Tyshkevich and A. Chernyak, we describe the structure of these graphs, showing that they hold many similarities to split and threshold graphs. As a consequence we show that  $\{2K_2, C_4, \text{chair}\}$ -free graphs have a degree sequence characterization with strong ties to the Erdős-Gallai criteria for graphic sequences.