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*The Average Order of Dominating Sets of a Graph*

This talk focuses on the average order of dominating sets of a graph. We find the extremal graphs for the maximum and minimum value over all graphs on $n$ vertices, while for trees we prove that the star minimizes the average order of dominating sets. We prove the average order of dominating sets in graphs without isolated vertices is at most $3n/4$, but provide evidence that the actual upper bound is $2n/3$. Finally, we show that the normalized average, while dense in $[1/2, 1]$, tends to $\frac{1}{2}$ for almost all graphs. Joint work with Jason Brown.