

Saturation Spectrum of Trees

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A graph G is H -saturated if H is not a subgraph of G but the addition of any edge from \overline{G} to G results in a copy of H . The minimum size of an H -saturated graph on n vertices is denoted $\text{sat}(n, H)$, while the maximum size is the well studied extremal number, $\text{ex}(n, H)$. The saturation spectrum for a graph H is the set of sizes of H saturated graphs between $\text{sat}(n, H)$ and $\text{ex}(n, H)$. This talk will highlight some recent developments in determining the saturation spectrum for several families of trees including paths, stars and brooms. This is joint work with Jill Faudree, Ron Gould, Paul Horn and Michael Jacobson.

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