

## **Sigma Connectivity, Cographs, and Flower Graphs**

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*Cographs*, or *complement-reducible graphs* are a well known hereditary family of graphs with a wide variety of applications and characterizations. In this talk we will look at applications of cographs to  $\Sigma$ -Connectivity, a new measure of graph connectivity introduced by the authors in 2016. In addition to proving results about  $\Sigma$ -connectivity, we also introduce a family of *flower graphs*, which serve a useful contrasting role to the cographs in our paradigm. We also hope to describe some open questions around computability for our graphs.

Keywords: Cographs, Graph Connectivity