

A Perfect Graph Jubilee

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In 1970, Claude Berge published the original French version of his fundamental and perhaps most important book, *Graphes et Hypergraphes*. To many graph theorists, its chapters were saplings ready to be cultivated into the vast forest that we know today. Coincidentally, or not, the Southeastern Conference on Combinatorics, Graph Theory, and Computing¹ was born that same year, on March 1, 1970, making this year's conference indeed a *Perfect Graph Jubilee*. Thus, as we celebrate the 50th (Jubilee) SECCGTC, we also celebrate *Le Bois de Berge* with its palms, pines and poplars, firs, fruit and ficuses, oaks, maples and cacti.

One of those sapling chapters in *Graphes et Hypergraphes* was on *Perfect Graphs*. Berge challenged us with his Perfect Graph Conjecture, and surveyed its core subclasses—comparability graphs, interval graphs, and triangulated (chordal) graphs—citing Fulkerson, Gallai, Ghouila-Houri, Gilmore, Hoffman, Hojós, Lovász. By the time the English version appeared in 1973, more sprouts could have been added to the blossoming family—Benzer, Dirac, Fishburn, Gavril, Roberts, Rose, Trotter. However, these and others would wait until 1980, when my own book *Algorithmic Graph Theory and Perfect Graphs* first appeared—a direct outgrowth of Berge's inspiring chapter.

In this lecture, I will present some of the significant developments related to chordal graphs that have been studied in recent years, and provide pointers for further investigation.

Keywords: chordal graphs, perfect graphs, triangulated graphs

¹ The first and second were actually called the Louisiana Conference, held at the University of Louisiana, which was changed to the Southeastern Conference when the 3rd was held at Florida Atlantic University.