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*On the Unimodality of Independence Polynomials of Very Well-Covered Graphs*

The independence polynomial of a graph is the generating function of the numbers of independent sets of each size. A graph of order  $n$  is very well-covered if every maximal independent set has size  $\frac{n}{2}$ . Levit and Mandrescu conjectured that the independence polynomial of every very well-covered graph is unimodal. In this talk we will show that every graph is embeddable as an induced subgraph of a very well-covered graph whose independence polynomial is unimodal, by considering the location of the roots of such polynomials. This is a joint work with Jason Brown of Dalhousie University.