Combinatorics Seminar

Wednesday, April 3, 2013

3:00 pm in Hume 331

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k-trees, k-frames, shells and independence polynomials

ABSTRACT

Much of what is known about trees extends smoothly to k-trees. Some fairly recent results of this type, concerning independence polynomials, will be presented. We discuss the 'shell' of a k-tree, corresponding to the line graph of a tree, and some steps are taken toward a possible characterization of shells. A new class of graphs, the k-frames will be defined, generalizing the k-trees. In each of these classes of graphs, the problem of characterizing the well-covered graphs will be discussed. This is joint work with John Estes, Wanda Payne, Lanzhen Song , Bing Wei and others.