

Robert Morris, University of Memphis
Hereditary properties of ordered graphs

A collection of graphs \mathcal{P} is called a *property* if it is closed under isomorphism, and a property is called *hereditary* if it is closed under taking induced subgraphs. The *speed* of \mathcal{P} is the function $n \mapsto |\{G \in \mathcal{P} : |V(G)| = n\}|$, a very natural measure of the ‘size’ of \mathcal{P} . It has been shown by the combined results of various authors that the speed of a hereditary property of labelled graphs is far from arbitrary: it ‘jumps’ between a discrete set of states. We are interested in extending this work to properties of ordered graphs, and in this talk I shall discuss the possible speeds up to 2^{n-1} . This is joint work with József Balogh and Béla Bollobás.