VCU Discrete Mathematics Seminar

End vertices in certain graph classes

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Monday, March 13
1:00-1:50
4119 Harris Hall (conference room)

Given a finite family of non empty sets $\mathcal{F} = (A_i)_{i \in I}$ it is possible define two graphs associated with the family: the ***intersection graph*** of $\mathcal{F}$ with set of vertices I and such that two vertices i, j are adjacent if and only if $A_i \cap A_j \neq \emptyset$; and the ***containment graph*** of $\mathcal{F}$ in which I is also the vertex set but two vertices i, j are adjacent if and only if $A_i \subset A_j$ or $A_j \subset A_i$. In both cases $\mathcal{F}$ is a ***model*** of G.

It is natural to ask which are the vertices of the graph that can be end vertices in the model? An ***end vertex*** v of an interval graph is one such that there is a model of the graph such that A_v is more to the left in the model.

In this work we give these kind of characterizations for **leaves** vertices in the path graphs and **end** vertices in containment graphs.

For the DM seminar schedule, see:

http://www.people.vcu.edu/~clarson/DM-seminar.html