VCU Discrete Mathematics Seminar

Target Pebbling in Paths

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Wednesday, Sept. 13
1:00-1:50 EST

In person! in 4145 Harris Hall, and Zoom @
`https://vcu.zoom.us/j/92975799914`
`password=graphs2357`

Graph pebbling is a game played on graphs with pebbles on their vertices. A pebbling step removes two pebbles from one vertex and places one on an adjacent vertex. A configuration C on a graph G is a function $C : V(G) \to \mathbb{N}$. The value $C(v)$ represents the number of pebbles at vertex v. The pebbling number $\pi(G)$ is the smallest k so that from any initial configuration of k pebbles it is possible, after a sequence of pebbling steps, to place a pebble on any given target vertex.

It is already known that $\pi(P_n) = 2^{(n-1)}$ A distribution D on a graph G is a function $D : V(G) \to \mathbb{N}$. The value $D(v)$ represents the number of targets at vertex v. The D-pebbling number $\pi(G, D)$ is the minimum number m such that G is (C, D)-solvable whenever $|C| \geqslant m$. In this work, we provide the D-pebbling number of paths.

For the DM seminar schedule, see:

`https://go.vcu.edu/discrete`