# VCU Discrete Mathematics Seminar

## *Cops & Robbers Pebbling in Graphs*


## Prof Glenn Hurlbert
## (VCU!)


Wednesday, Mar. 19
1:00-1:50 EDT

**In person!** in 4145 Harris Hall. And on Zoom:
`https://vcu.zoom.us/j/92975799914`
`password=graphs2357`


Here we merge the two fields of Cops and Robbers and Graph Pebbling to introduce the new topic of Cops and Robbers Pebbling. Both paradigms can be described by moving tokens (the cops) along the edges of a graph to capture a special token (the robber). In Cops and Robbers, all tokens move freely, whereas, in Graph Pebbling, some of the cop tokens disappear with movement while the robber is stationary.

In Cops and Robbers Pebbling, some of the cop tokens disappear with movement, while the robber moves freely. We define the cop pebbling number of a graph to be the minimum number of cops necessary to capture the robber in this context, and present upper and lower bounds and exact values, some involving various domination parameters, for an array of graph classes. We also offer several interesting problems and conjectures.

This is joint work with Nancy Clarke and former VCU Masters student Josh Forkin.


For the DM seminar schedule, see:

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