

VCU Discrete Mathematics Seminar

*On graph labellings, their complexities and
connection to group theory*

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Tuesday, Nov. 5

12:30–1:20

4119 Harris Hall

Abstract: For a graph G , a *graph labelling* is an assignment of natural numbers to the vertices $V(G)$ (or edges $E(G)$, or both) such that certain conditions hold. This is a classic and well studied problem in graph theory and computer science, and models many real world problems. - In this talk we discuss some specific graph labellings and investigate the complexity of transforming one labeling into another subject to certain rules. Considering some special types of graphs, like the path, star and grids, one quickly sees how the symmetric group, its subgroups and Cayley graphs plays an important role.

